



# **United States Department of the Interior**

**FISH AND WILDLIFE SERVICE**



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## **NESTING LOGGERHEAD SEA TURTLE ACTIVITY REPORT 2000 AND 1980-2000 NESTING SUMMARY**

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# NESTING LOGGERHEAD SEA TURTLE ACTIVITY AT BACK BAY NATIONAL WILDLIFE REFUGE - 2000

## ABSTRACT

This paper presents results from the 8<sup>th</sup> Annual Study (using Army Corp of Engineers funds) of nesting by the Atlantic Loggerhead sea turtle (*Caretta caretta*) along the Atlantic Ocean coastline in Virginia Beach, Virginia during 2000. All surveys were implemented by volunteers and staff of the Back Bay National Wildlife Refuge, Virginia Beach, Virginia, throughout the sea turtle nesting season. Two seasonal, full-time biological technicians were hired to search twenty-five miles of beach along the northern periphery of the nesting range of the Atlantic Loggerhead. Refuge biologists investigated two Loggerhead sea turtle crawls during the 2000 nesting season. The successful nesting attempt for the 2000 nesting season occurred July 11, 2000 on Back Bay NWR, 2.6 miles south of the Refuge beach ramp. It produced a nest of 112 eggs. Refuge employees captured the nesting Loggerhead female and Virginia Institute of Marine Science personnel applied flipper tags and a satellite transmitter. A second crawl, located at the southern end of False Cape State Park, provided no evidence of a nest. An employee at False Cape State Park sighted a third sea turtle crawl, however, tides obliterated it before the sighting could be confirmed. No nests or crawls were located along the oceanfronts of Sandbridge, the Virginia Beach Resort Area, or Fort Story. Night patrols were conducted from June 5-June 29 and July 26-August 4 by volunteers and Refuge employees, however no turtle was sighted or captured during this period. This report also includes an analysis of Loggerhead sea turtle nests and stranding data from 1980 to 2000.

Six attached appendices also include the: 1) Year 2000 Sea Turtle Strandings, 2) Year 2000 Sea Turtle Nest Relocations, 3) Marine Science Museum Hatchling Report for 1999-2000, 4) 05/12/2000 National Marine Fisheries Gillnet Closure Announcement, 5) 1970-2000 Virginia Beach Sea Turtle Nest Summary, 6) 2000 Summary of Costs Associated with this program.

## II. INTRODUCTION

The Atlantic leatherback, the Atlantic loggerhead, the Atlantic green, and the Kemp's Ridley sea turtle are the four sea turtles regularly seen in Virginia waters (Keinath, Musick, and Byles 1987). All of these are federally listed as either threatened or endangered (50CFR1981). The loggerhead, (*Caretta caretta*) is the only recurrent sea turtle species nesting on beaches of the Atlantic Oceanfront in Virginia Beach. Pollution, exploitation, poor fishing practices, and habitat modifications have aided in the loggerhead decline. Since sea turtles come ashore only to lay eggs (Dodd 1988), nesting provides the most convenient opportunity for monitoring and research.

The twenty-five miles of beach searched for loggerhead sea turtle use this year, occurs along the northern extent of the established nesting range for this species in the United States. Loggerhead activity often occurs during the summer in and around the Chesapeake Bay. The Chesapeake Bay serves as a developmental feeding area for juvenile loggerheads (Lutcavage and Musick 1985; Keinath, Musick and Barnard 1989).

Loggerhead females generally nest on a 2 to 4 year cycle, and lay from one to six nests a season (Ehrhart 1979; Dodd 1988). The renesting interval varies from 12 to 16 days, with an average of 14 days (Frazer 1984; Dodd 1988). Sea turtles generally return to the same area to lay successive clutches of eggs, usually within a 5 km radius of the first nest (Dodd 1988).

For eight successive years, personnel of the Back Bay National Wildlife Refuge (BBNWR) have been patrolling the Virginia Beach Resort oceanfront in search of loggerhead sea turtle nests. This has been made possible by funding provided to the Refuge by the U.S. Army Corps of Engineers (the Corps/ACOE), in conjunction with their study of beach replenishment impacts to nesting sea turtles. During the summer of 1993, the first cooperative agreement was established between the Corps and the Refuge. Through this agreement, the Corps provided funding to the Refuge, to determine the extent of nesting sea turtle use along the Virginia Beach oceanfront. The Refuge then hired and trained seasonal biological technicians to patrol this oceanfront and detect sea turtle crawls and other nesting signs. Because the loggerhead sea turtle is a federally listed Threatened species, the Refuge has researched nesting activities and managed nesting populations since the early 1970's. The U.S. Fish and Wildlife Service employs protective measures and funds research projects that aid in the conservation of this federally threatened species, often in partnership with other federal and state agencies.

During 2000, the Corps provided the Refuge with \$20,700 (\$18,700 Labor for 2 Biological Technicians and \$2,000 for Contingent Night-Patrols Labor) for the nesting sea turtle study. An additional \$1,900 was added in May 1999, for expanding the survey route to include the remaining three miles of Fort Story's western beachfront that had not been patrolled in the past. Thirty-eight percent of the funding was absorbed by the USFWS Denver Finance Center for administrative costs, while the remaining sixty-two percent was dedicated to salaries of the two seasonal biological technicians hired to patrol the oceanfront and additional Refuge staff during night patrols. Additional miscellaneous equipment, materials, all-terrain-vehicle repairs and



maintenance, gas and oil, and additional support staff for turtle patrols were absorbed by the Refuge budget.

### **III. MATERIALS AND METHODS**

Seasonal biological technicians and permanent Refuge staff logged approximately 850 hours managing and collecting information on sea turtle nesting for the 2000 sea turtle nesting season. As during past years, Refuge personnel conducted sea turtle crawl and stranding surveys, via all-terrain-vehicles (ATVs) on six segments of oceanfront beach. Those beach routes included (from north to south): (1) Fort Story; (2) the Virginia Beach Resort Strip; (3) Croatan Beach; (4) the Town of Sandbridge; (5) Back Bay National Wildlife Refuge; and (6) False Cape State Park. All routes were patrolled on a daily basis, seven days a week. Figure 1 illustrates areas these patrol routes.

Surveys were conducted by ATV every morning from May 23 through September 9, along beach routes #4-6, above. Patrols along the Fort Story to Rudee Inlet and Croatan Beach route (#1-3 above) were conducted every morning from June 3 through September 9, starting at 0530 hours; in order to search as much beach as possible before the City of Virginia Beach's "Beachscapers" groomed the Resort beaches and wiped out crawl signs. Patrols took place above the high tide line while traveling in one direction, and along the water's edge the other direction. Whether the high or low beach was patrolled first was decided by whether the tide was rising or falling.

In previous years, night patrols were scheduled to capture a nesting loggerhead laying its second clutch of the season for a period of ten days. VIMS recommended conducting night patrols the entire nesting season to ensure capture during the 2000 nesting season. Back Bay NWR conducted night patrols from June 5 through June 30. Night patrols were stopped after funding for vehicle repairs and manpower was exhausted. No crawls, turtle sightings, or captures occurred during this night patrol period. Night patrols resumed after the first nest on July 11, 2000 for ten days (July 26-August 4). No crawls, turtle sightings, or captures occurred during this second night patrol period.

The nesting female was restrained using a box container constructed by Biologist Sara Williams of exterior plywood and fastened together with hinges. This portable "restraining container" stands three feet high and safely and effectively restrains a turtle when fence posts are placed around the outside.

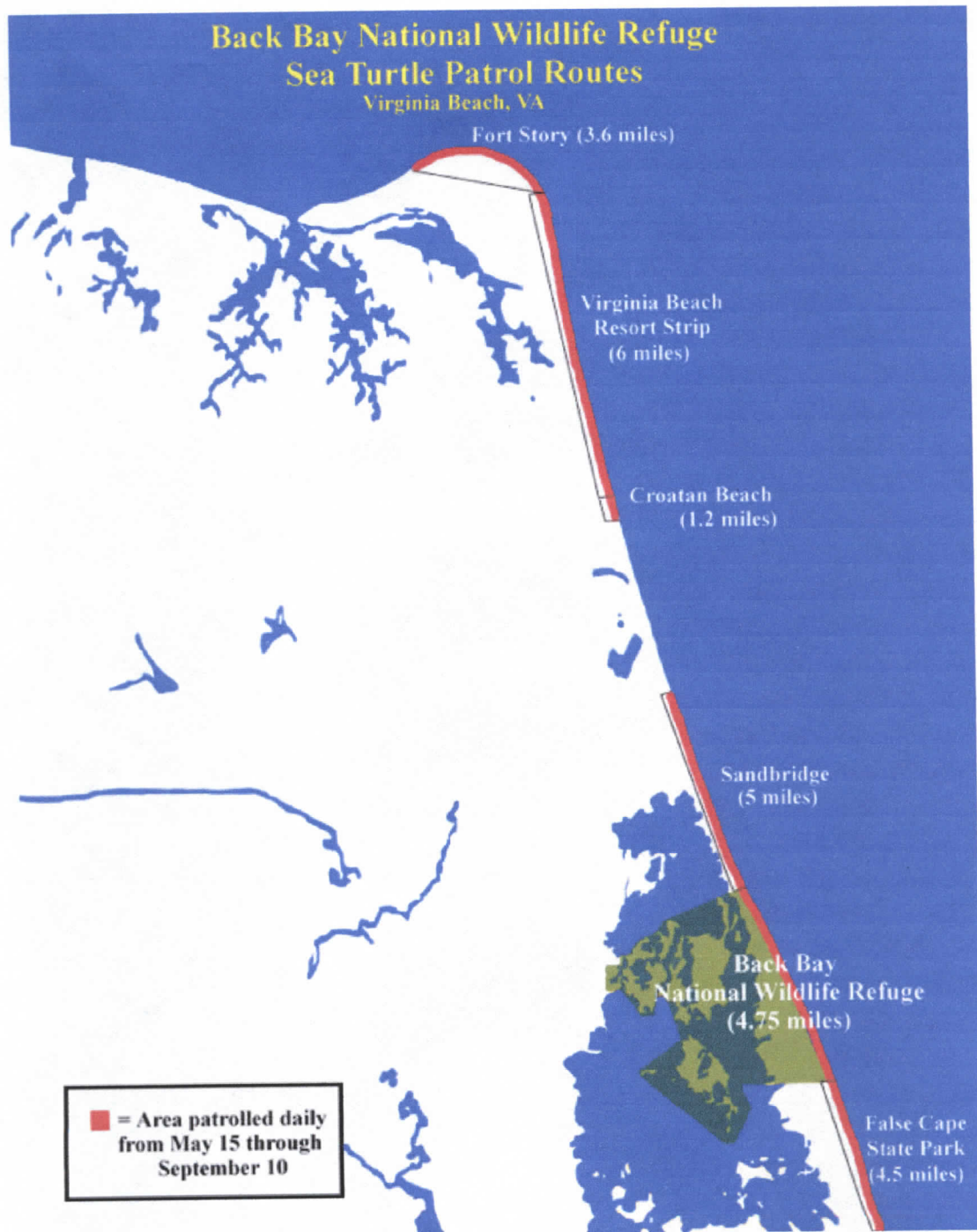


Figure 1. Areas patrolled daily from May 15 through September 10, 2000 for strandings and sea turtle crawls.

All sea turtle crawls were photographed and documented. Metric tape was used to measure crawl widths at three points where tracks were distinct. An average of the three measurements represented the crawl width of the nesting female. Each "body-pit" periphery was marked with wire flags and then carefully searched and excavated for the egg chamber/nest laid by the loggerhead. When eggs were discovered, they were carefully counted and removed. Depth measurements were taken of the top and bottom of the egg chamber. The eggs were then transported in coolers to a protected hatchery site within the sand dunes of Back Bay National Wildlife Refuge. At the hatchery site, all eggs were transferred to a predator-proof cage in the same sequence as the original nest and reburied at the same depth as the original nest. Refuge Employees checked the nest twice daily, starting two weeks prior to the expected hatch date for signs of hatching and to collect ground temperature readings. When a concave depression was detected on the surface of the nest, a refuge staff member was placed on duty from 2100 to 0300 hours to watch for the emergence of hatchlings. Hatchlings were released on the adjacent beach and into the surf within an hour after their emergence.



Photo 1. All nests are reburied in a "Nesting Container" (pictured above) to protect relocated nest and eggs from predators.

In addition to patrolling for turtle nests, Refuge personnel collected data on sea turtle strandings in the surveyed areas. Nearly all stranded animals were dead. Each stranding was measured, examined for trauma and cause of death, and tissue and/or humerus samples collected. Patrollers contacted the Virginia Marine Science Museum (VMSM) Stranding Team for additional data collection and carcass removals on all beaches except for Back Bay NWR and False Cape State Park. Completed "Sea Turtle Stranding and Salvage Network-Stranding Report(s)" were sent to the Virginia Institute of Marine Science (VIMS) where reports were entered into the National Marine Fisheries Service's (NMFS) national stranding database. Copies of those reports are included in this report as Appendix 1. Section D of Part IV, Results and Discussion, provides a detailed narrative on this topic.

## **IV. RESULTS AND DISCUSSION**

### **A. AREA COVERAGE**

Over eight hundred hours of sea turtle patrol or other sea turtle duty hours were logged by trained Refuge personnel. Approximately 13 miles of oceanfront beach were covered from Fort Story to Croatan Beach; and 15 miles from the Dam Neck Naval Facility border in Sandbridge, to the North Carolina border. Area coverage along Sandbridge Beach and one or two portions of Fort Story, varied with high tides, since beach narrowness, bulkheads, beach erosion and high winds made portions of the beach inaccessible by ATV on some patrol days. On those occasions, Refuge staff would walk out to such areas from adjacent roads and view the missed area through binoculars.

Patrols of the Sandbridge-Back Bay Refuge-False Cape State Park oceanfront commenced on May 23, 2000. Due to ATV mechanical problems, the Fort Story to Rudee Inlet/ Croatan Beach patrols could not start until June 3, 2000. All patrols ended on September 9, 2000.

The possibility of undetected sea turtle nests exists along the Fort Story-Croatan Beach segment; since beach cleaning is conducted by City beach maintenance crews, every morning between 0230 to 0900 hours. This tractor maintenance smooths out Resort beaches, making crawl detection impossible. Although Refuge beach patrols start at 0530 hours, City workers often have already cleaned and smoothed some portions of the Resort beach. Refuge biological staff maintained contact with these City workers on the beach, and handed out information on sea turtle crawl recognition, nesting, and who to contact should they locate a crawl. Their responses have been positive. An organized informational program through the Waste Department will be pursued prior to the next nesting season.

The first series of night patrols occurred during June 5-30, 2000. No turtle was located; but several trespass vehicles were seen on the beach by non-law enforcement volunteers. The second series of night patrols took place during July 26 - August 4.

Turtles that nest in the Virginia Beach vicinity may also nest in the northern region of North Carolina. A ten mile stretch of beach from Corolla to the NC/VA border is patrolled daily during

the nesting season by Mackay National Wildlife Refuge.

## B. NESTING ACTIVITIES AND CAPTURE RESULTS

Nesting sea turtle surveys of the Fort Story and Resort beaches yielded no sea turtle nests or crawls. One nest located on Back Bay NWR and one false crawl at False Cape State Park were discovered by Refuge Staff this year. Information regarding the nest and crawl were recorded on "Nest Relocation Data Sheets," (Ref. Appendix 2).

Refuge permittee Ernie Bowden, discovered an emerging Loggerhead sea turtle at 2220 hours on July 11, 2000. He reported the sighting by telephone to Refuge Biologist Lamar Gore at his residence, who arrived at the scene at 2305 hours. Refuge Biologist Sara Williams, Biological Technician Michael Christine Farrell, Refuge SCEP Student Brighid Tewey, and Student Interns Andy Campomizzi and Eric Duran also responded and assisted in excavating Nest #1/Crawl #1. One hundred and fifteen (115) eggs were excavated at 0030 hours and removed from the nest cavity. Eggs were carefully moved to a safer, "nursery" location within the Back Bay National Wildlife Refuge, placed into predator-proof cages, and reburied.

A satellite transmitter was attached to the carapace and metal tags attached to flippers by VIMS employee Kate Mansfield, before releasing it into the ocean. All Refuge night-patrol vehicle headlights were covered with red tape to minimize light disturbance. Photographs were taken of the crawl, the nest-site, the excavation, and captured Loggerhead sea turtle with transmitter. Measurements of the crawl and the nest cavity were also taken. The following table summarizes the chronology of the July 11<sup>th</sup> nest:

Nest #	Date of Nesting	Location	Total # of Eggs Laid	Expected Hatch Date	Actual Hatch Date	Length of Incubation (days)
1	July 11, 2000	Back Bay NWR	115	Sept. 9, 2000	Sept. 25-Oct. 5, 2000	76-86

Table 1. 2000 Loggerhead Sea Turtle Nesting Chronology

Crawl number two was reported by False Cape State Park Staff on July 16, 2000 at 0840 hours. The crawl was located 150 meters north of the False Cape State Park/North Carolina beach barricade. Refuge employees and volunteers investigated the crawl at 1015 hours. The high tide obliterated some sections of the crawl, but tracks leading to a turn around point were identified on the upslope of the first foredune. Staff identified the false crawl after excavating the turn-around point which resembled a body pit. North Carolina residents reported a second crawl the morning of July 16 located on the northern beach of North Carolina near the Virginia state border. Ruth Boetcher, the Sea Turtle Project Coordinator for the NC Nongame and Endangered Wildlife Program, investigated the North Carolina crawl, discovered a nest, and placed a predator protection device on top of the nest.





Photo 2. Nest #1 - July 11, 2000 First crawl leading to first nest, marked by pink flags embedded in sand (above).



Photo 4. Nest #1 - (7/11/00) Application of a transmitter on sea turtle, closed in a "turtle-restraining" container, by Kate Mansfield of Virginia Institute Marine Science, Gloucester.



Photo 3. Nest #1 - (7/11/00) Close-up of Excavated Nest Entrance (above)



Photo 5. Crawl #2 - July 16, 2000 The second crawl, from shore to foredune, leads to a possible nest.





Photo 6. Crawl #2 (7/16/00)- Showing location on False Cape State Park foredune, with Refuge staff searching for nest.

### C. HATCH RESULTS

Refuge personnel excavated and relocated one loggerhead sea turtle nest during 2000. Nest success is detailed in Table 2. A total of one hundred fifteen loggerhead sea turtle eggs were excavated and 112 eggs re-buried in the Refuge nursery by Refuge staff. One egg was punctured during the nest search. Two eggs had fused shells but separate yolks and were slightly torn at point of fusion. Damaged eggs were not re-buried to protect the nest from bacteria and reduce predator attraction. Soil and air temperatures were taken at the nursery site during the twice daily checks of a nest, 10-14 days prior to the expected hatch date. Hatch success was low due to invasion of the nest by dune grass roots. A total of 56 live loggerhead hatchlings were released into the Atlantic Ocean from the Refuge beach. Refuge staff released the first group of 18 hatchlings from 2200 to 2345 hours on September 24 on an outgoing high tide. Four hatchlings were transferred to the Virginia Marine Science Museum in the care of Thomas Harder for scientific growth rate observations and public education. These turtles will be released into the Atlantic Ocean after one year, as during past years.

Four additional hatchlings emerged from the nest during September 25-27. Refuge Biologist Sara Williams examined the nest during an afternoon nest check on October 4, after noticing exposed grass roots around the nest cage. A matrix of roots infiltrated the entire nest and may have prevented hatchling emergence. Sixteen live hatchlings in poor condition and two dead hatchlings were found in the top four inches of the nest on October 4. The live hatchling were released immediately. Due the unusual circumstances and the possibility of trapped live hatchlings, the nest was re-excavated on October 5. A total of fourteen live hatchlings, 15 dead hatchlings, and 38 unhatched eggs were removed during the excavation. The live hatchlings were immediately released.

The four hatchlings donated to the Virginia Marine Science Museum (VMSM) in 1999 were released into the Gulf Stream by the U.S. Coast Guard on November 8, 2000. Short notice prevented Back Bay staff from accompanying a VMSM volunteer on the Coast Guard Cutter for the release of the one year old juveniles. A summary of hatchling growth and development was prepared by Mark Swingle, VMSM Curator of Stranding Program and Acquisitions and is included in Appendix 3.

Table 3 provides an egg analysis for the 2000 nest. The 2000 hatch rate was 63.5%. The percent of hatchlings that emerged and were released, i.e. nest success, was 45.2%. The 1999 hatch and nest success rates were 97% and 95%, respectively. Dead hatchlings that did not emerge may have been trapped by expanding grass roots, died shortly after hatching, or suffered from developmental problems. Dead eggs were frozen and examined at a later date. Results are in Table 3.

Vandalism of the nursery site in 1999 required a new nursery site in a more remote area for the 2000 nesting season. Footprints of various animals including horse, deer, raccoon and fox were seen around the nursery area. Human foot prints as well as bicycle tracks were also present, however, no apparent disturbance to the nest occurred. The presence of grass roots was not noticed nor predicted during the nest reburial on July 12, 2000 at 0345 hours. There were no problems with red ant infestations this year. A new nursery site will be established for the 2001 nesting season which will be in an open grassless area devoid of ant colonies and human disturbance.

Nest #	# Eggs Laid	# Eggs Hatched	# Live Hatchlings	# Dead Hatchlings	# Hatchlings Released	# Unhatched Eggs	Nest Success (%)*
1	115**	73	56	17	52***	38	45.2
<b>Totals</b>	115	73	56	17	52	38	45
<b>Comments:</b> *Nest success refers to the number of hatchlings released. **3 damaged eggs were not reburied with nest. ***Virginia Marine Science Museum received four live hatchlings on 09/24/00 for growth research and public education. Temporal distribution of hatching: 09/24=22 hatchlings emerged, 09/25=2 hatchlings emerged, 09/26=1 hatchling emerged, 09/27=1 hatchling emerged, 10/04=16 live hatchlings removed, 10/05=14 hatchlings.							

Table 2. 2000 Loggerhead Sea Turtle Nest Success Summary

Nest #	# Eggs Laid	# Eggs Hatched	# Eggs Hatched	# Eggs Infertile	# Eggs Predated	# Eggs Added*	# Eggs w/ Dead Embryos
1	115	3	73	0	0	15	23
<b>Totals</b>	115	3	73	0	0	15	23
<b>Comments:</b> Shells of hatched and unhatched eggs orange in color (possibly from vegetation roots). *Rotted eggs with no embryonic development.							

Table 3. 2000 Loggerhead Sea Turtle Egg Analysis Summary



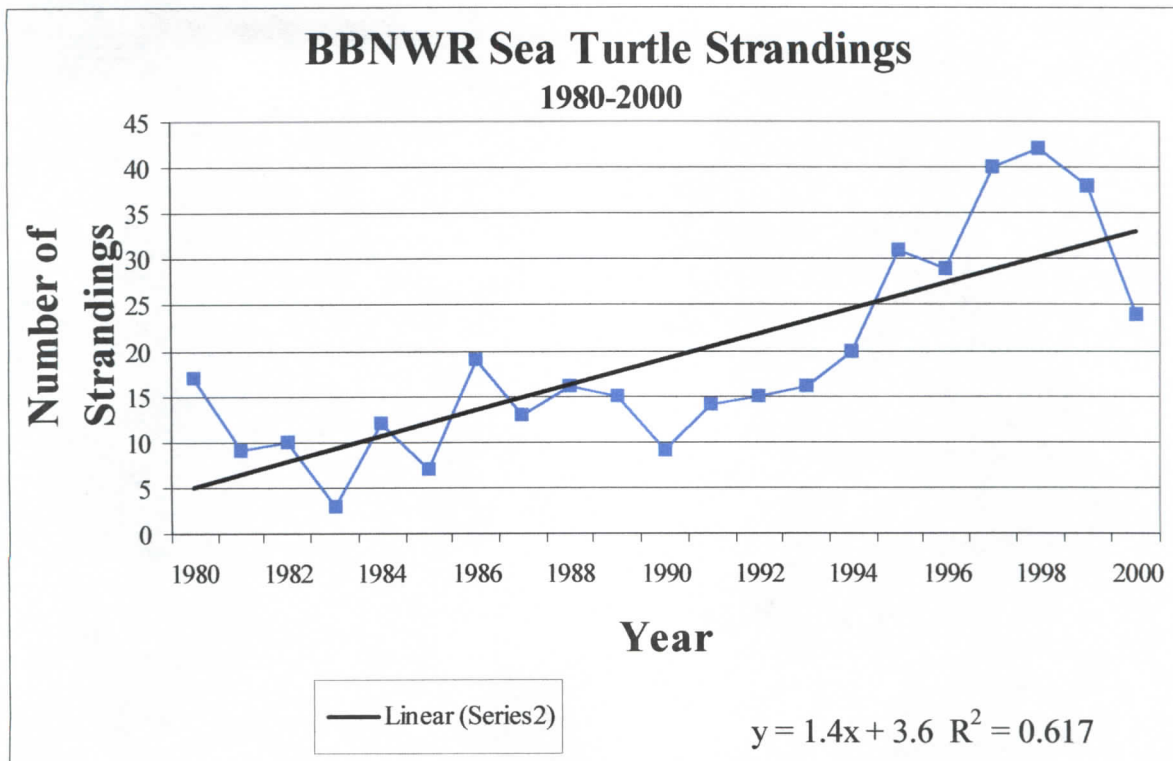


Figure 2. BBNWR Sea Turtle Strandings from 1980-2000.

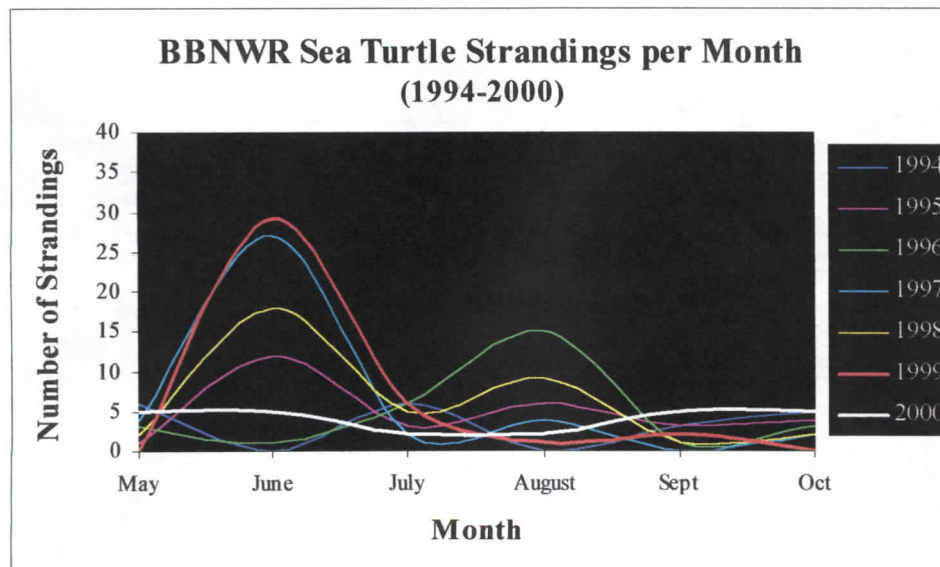


Figure 3. BBNWR Sea Turtle Strandings per Month from 1994-2000.

## **V. 1980-2000 NESTING SUMMARY**

### **A. BACKGROUND**

Appendix 5 contains a general summary of BBNWR nesting activity from 1970 to 2000 as well as data tables used in the creation of all graphs in this report. The first documented record of nesting was in 1970, although nesting previous to this year is likely. Loggerhead turtles typically nest at two to three year intervals and exhibit nest site fidelity. Three nests occurred from 1970 to 1971, however no nests were reported from 1972 to 1978. It is not known whether the beaches were regularly patrolled from 1972 to 1978; whether the females which usually nest in Virginia Beach experienced mortality; nested farther south in North Carolina; or whether this seven period experienced a natural decline.

The Refuge participated in the “Loggerhead Egg Transplant Project” from 1972 until 1979 in coordination with Chincoteague, Pea Island, and Cape Romain National Wildlife Refuges. The Project’s objective was to reestablish the population of nesting Loggerhead sea turtles along Refuge beaches by relocating nests from Cape Romain NWR to Back Bay NWR. A total of 5,577 loggerhead hatchlings from 72 nests were incubated in predator proof cages on Back Bay NWR released into the Atlantic from the Refuge beach. The Southeastern Marine Recovery Team recommended terminating the program until more information regarding the effectiveness of nest transplanting and the influence of transplanting on sex ratios were available. The Recovery Team also recommended conducting daily sea turtle patrols during the nesting season to protect naturally occurring nests in this area.

Daily beach patrols were conducted on BBNWR from June until September of 1980. Daily patrols continues from June or July until August or September on BBNWR and FCSP during 1981 until 1985. From 1986 until the present, daily patrols are conducted on BBNWR, FCSP, and Sandbridge. Nesting activity for the years prior to 1980 were not analyzed due to inconsistent daily beach patrols. Data from 1980-2000 are analyzed with the assumption that all nests were detected and investigated by Refuge staff. A total of 54 nests and 15 false crawls were discovered from 1980-2000.

### **B. YEARLY NESTING TRENDS**

Figure 4 demonstrates the annual trends for number of nests from 1980 to 2000. Based on the 21 years of gathered data, 80% of nests occurred during “odd” years; i.e. 1981, 1983, 1985, etc.

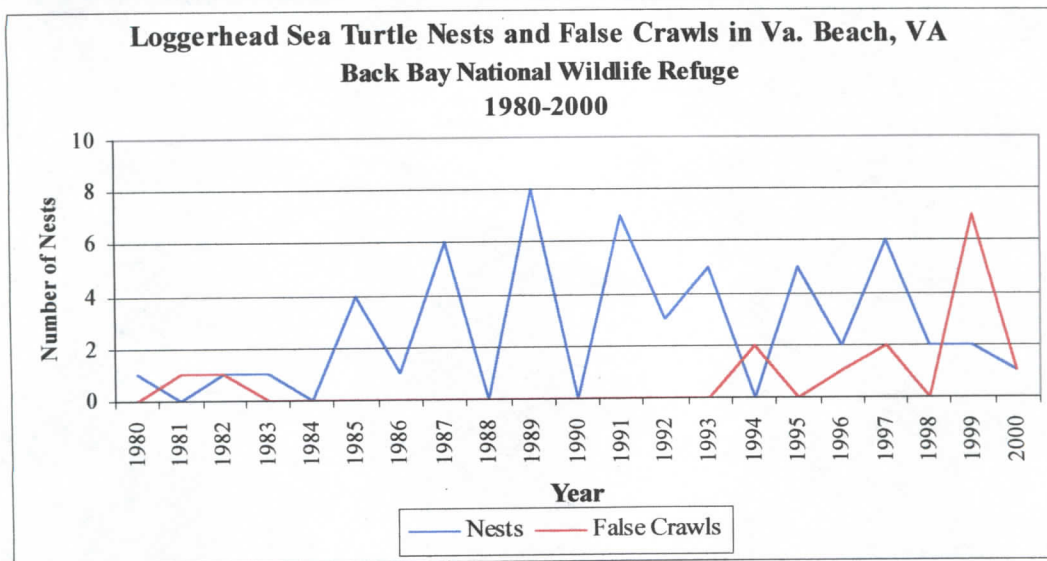


Figure 4. Loggerhead sea turtle nests and false crawls in Virginia Beach, VA from 1980-2000

### C. NESTING POPULATION SIZE

A total of 54 nests were laid in Virginia Beach over the 21 year summary period (1980-2000). Using this information and the possibilities that nesting females may have laid: one or two nests every two years; one or two nests every three years; or some combination thereof, the nesting population in Virginia Beach may consist 2 to 8 females. This estimate was calculated using the following equation:

$$\text{Number of nesting females} = \frac{(\text{Total \# of nests})}{(P/I)*Q}$$

Where P=Period; total number of years nests were laid

I=length of interval between nesting seasons in years

Q=number of nests per individual during a nesting season

This estimate assumes no immigration or emmigration of the population and a 0% mortality of nesting females. The estimates shown in Figure 5 are not statistically reliable and are presented for informational purposes only. Reliable estimates on the nesting population can be calculated only if night patrols are conducted each night of the nesting season and each nesting female is tagged. The total number of nesting loggerhead turtles in the vicinity of Virginia Beach cannot be calculated without additional data.

Females nesting on the northern beaches of North Carolina may also nest in Virginia Beach. Nesting population estimates for the vicinity of Virginia Beach may be larger if nests in northern North Carolina are included in calculations.

<b>Estimation of Number of Nesting Females 1980-2000</b>				
Back Bay National Wildlife Refuge				
<b>Data:</b>				
# Nests per interval	Length of Nesting interval in yrs	Period (# of yrs)	Total # of Nests	
1	2	21	54	
1	3	21	54	
2	2	21	54	
2	3	21	54	

<b>Calculations: Number of Individuals for each nesting regime</b>					
Nesting frequency	10%	20%	30%	40%	50%
once every 2 yrs	0.51	1.03	1.54	2.06	2.57
once every 3 yrs	0.77	1.54	2.31	3.09	3.86
twice every 2 yrs	0.26	0.51	0.77	1.03	1.29
twice every 3 yrs	0.39	0.77	1.16	1.54	1.93

Nesting frequency	60%	70%	80%	90%	100%
once every 2 yrs	3.09	3.60	4.11	4.63	5.14
once every 3 yrs	4.63	5.40	6.17	6.94	7.71
twice every 2 yrs	1.54	1.80	2.06	2.31	2.57
twice every 3 yrs	2.31	2.70	3.09	3.47	3.86

Table 4. Estimation of Number of Nesting Females 1980-2000.

#### D. NESTING CHRONOLOGY

Figure 5 details the number of turtle nests from 1980-2000. Fifty-seven percent of all nests occurred in July; while 26% occurred in June, 15% in August, and less than 2% in May.

Loggerhead turtles move north along the East Coast in the spring as ocean water temperatures increase (Coles and Musick 2000; Eperly et al 1995). Timing of nesting activity may correlate with ocean water temperatures; as ocean temperatures rise earlier in the nesting season, nests may be laid earlier. The National Oceanic and Atmospheric Administration (NOAA) produced a Coastal Water Temperature Guide (Table 3) and computed averages from records ranging from several years to several decades. Ocean temperatures for Cape Charles, Virginia, located on the Chesapeake Bay, fluctuate more drastically than Jacksonville, Florida, an area with the highest density of nesting loggerhead turtles in the U.S.

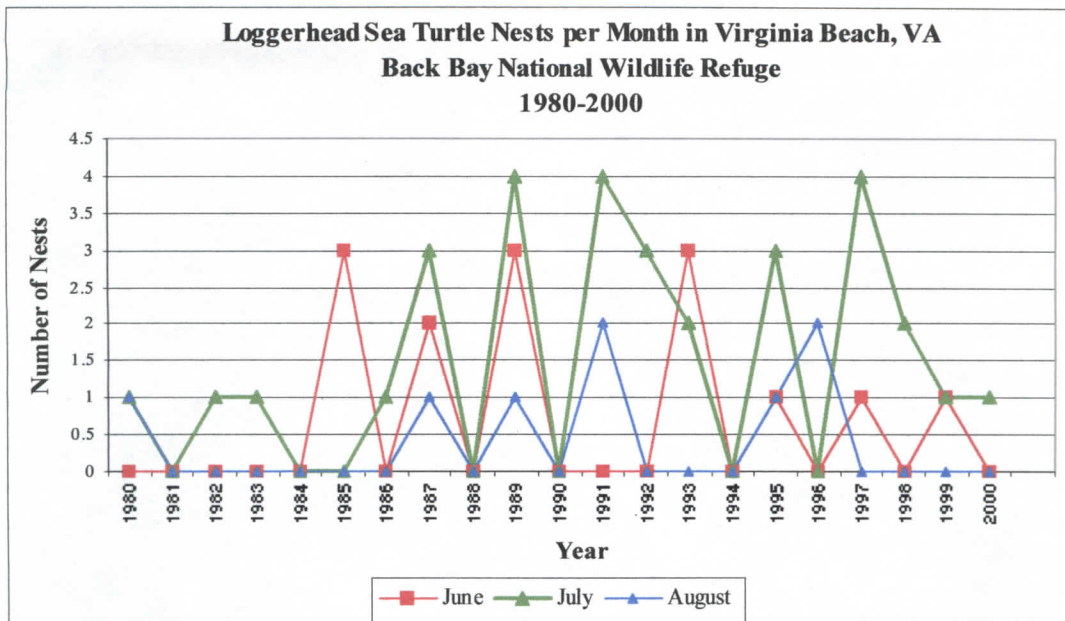


Figure 5. 1980-2000 Loggerhead Sea Turtle Nesting Chronology.

NATIONAL OCEANOGRAPHIC DATA CENTER COASTAL WATER TEMPERATURE GUIDE		
Month	Cape Charles, VA	Jacksonville, FL
January	36	57
February	39	56
March	46	61
April *	51	68
April **	56	71
May *	60	74
May**	66	77
June *	70	80
June **	69	81
July *	76	83
July **	77	84
Aug *	78	83
Aug**	77	83
Sept*	76	83
Sept**	74	82
Oct*	66	78
Oct**	61	72
Nov	54	67
Dec	44	60

From website:  
[www.nodc.noaa.gov/dsdt/wtg12.html](http://www.nodc.noaa.gov/dsdt/wtg12.html)  
 Note: \*indicates first half of month, \*\*indicates  
 second half of month

Table 5. National Oceanographic Data Center Coastal Water Temperature Guide for Cape Charles, Va and Jacksonville, FL



## E. NEST DISTRIBUTIONS

Forty-four percent of the nests from 1980-2000 occurred on the beaches of Back Bay National Wildlife Refuge; 24% on False Cape State Park; 8% on Resort and Croatan beaches, and 9% on Sandbridge beaches which also include Dam Neck and Little Island City Park (Figure 6). Nests in the "N/A" category include records of eight nests with unrecorded locations during 1989, and one nest laid in 1992 at Dam Neck Naval Base. Figure 7 shows a map of the Virginia Beach area from Fort Story to the North to the North Carolina border to the South. Sixty-nine percent of the nests in Virginia Beach occurred on Back Bay NWR and False Cape State Park. These two beaches total approximately 12 miles in length, the longest contiguous tract of undeveloped shoreline in southeastern Virginia. More sea turtles may nest on Back Bay NWR because nests in other areas of Virginia Beach are relocated to Back Bay and all hatchlings released on Back Bay NWR beaches. Back Bay NWR and False Cape State Park may also be the extreme northern-most range of loggerhead nesting as well as the most suitable nesting site.

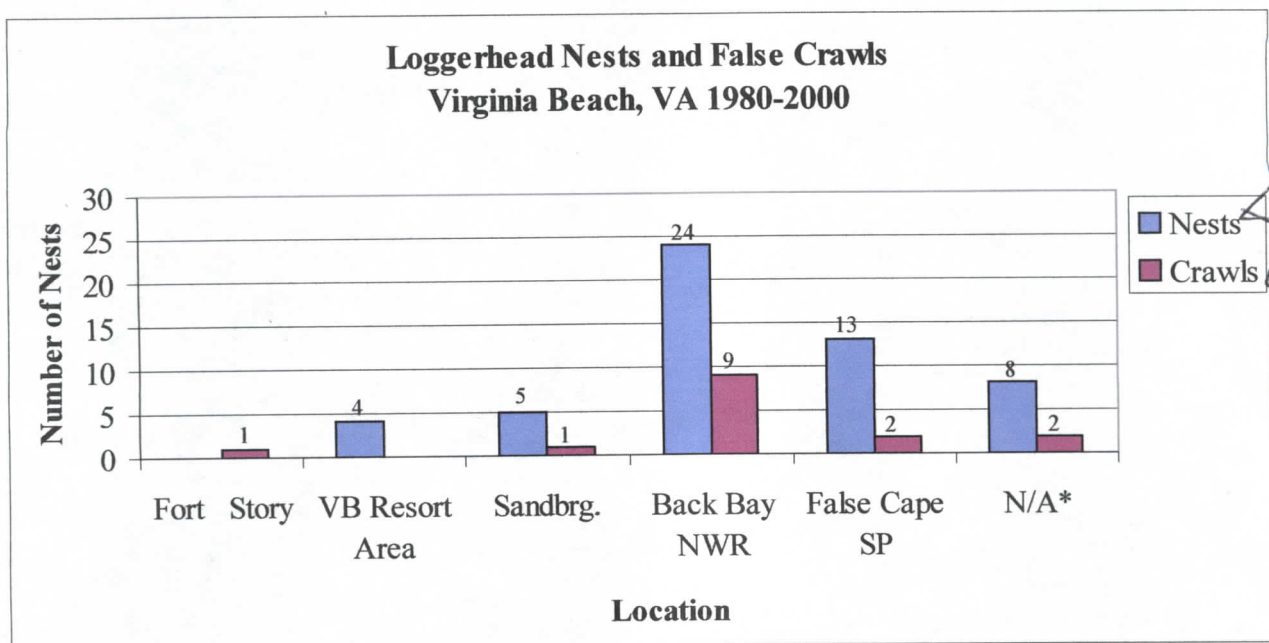


Figure 6. 1980-2000 Loggerhead Turtle Nests and False Crawls in Virginia Beach, VA.

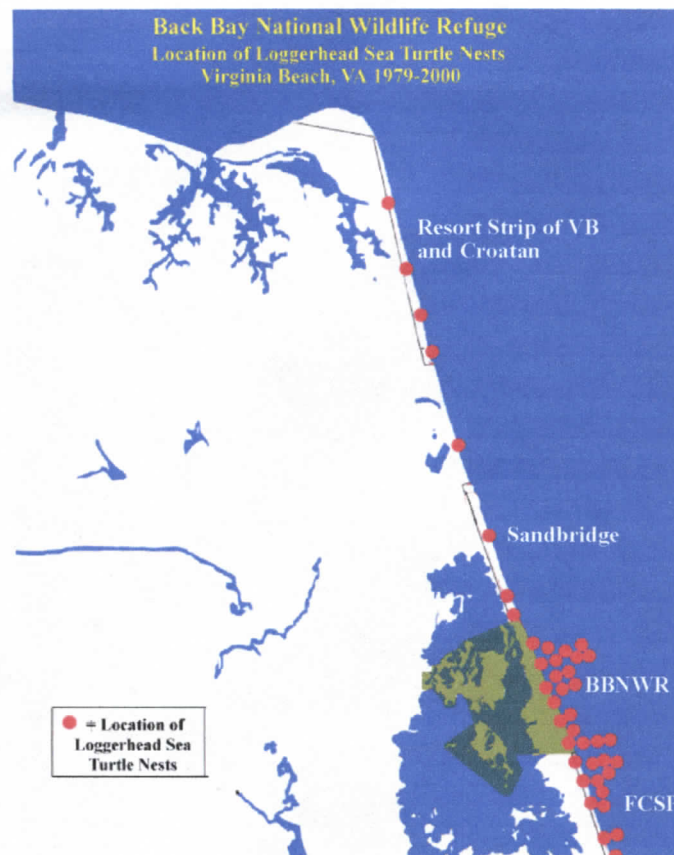


Figure 7. Map of Virginia Beach showing Loggerhead Sea Turtle Nest Locations from 1979-2000.

#### F. NEST SUCCESS

Nest success rates were determined by dividing the number of eggs in a nest by the number of hatchlings that emerged. Thirty-seven out of fifty-four nests (69%) during the 1980-2000 period had nest success rates of 81% or higher (Figure 8). Figure 9 demonstrates nest success rates from 1980-2000 for all 54 nests. Nest success rates ranged from 0% to 98%, and averaged 79%.

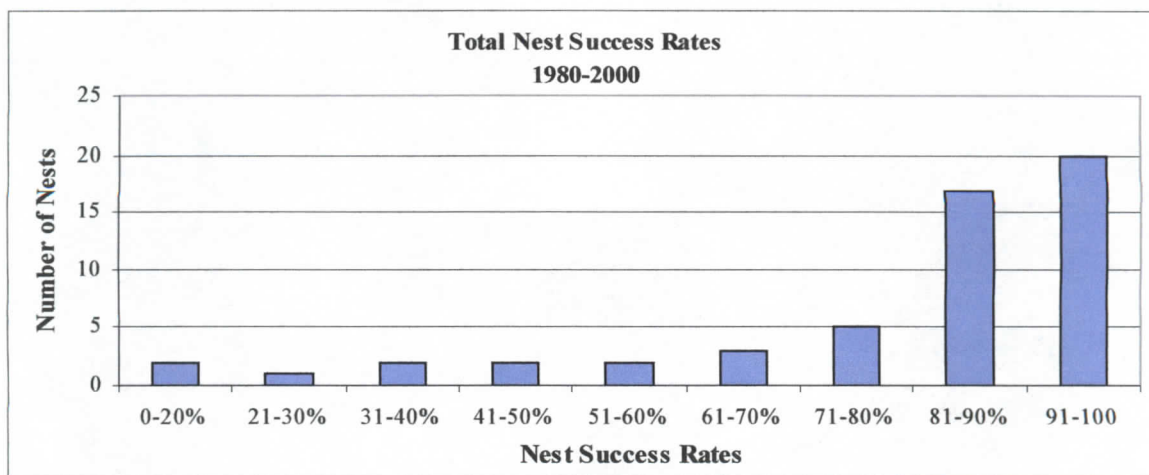


Figure 8. 1980-2000 BBNWR Total Nest Success Rates.

Nest success is dependent upon many factors. Available data on BBNWR nests also include length of incubation, top nest depth, and bottom nest depth. Nest success was compared with these data to help identify significant trends or correlations (Ref. Appendix 5).

Incubation period data are not available for nests prior to 1980, nor for nests laid June 5, 1989 and July 30, 1992. Nest success and length of incubation from 1980-2000 are illustrated in Figure 10. The average incubation period for nests is 71 days but ranged anywhere from 59 days (nest success=94.8%) to 112 days (nest success=94%). Nest incubation lengths with a success rate of 80% or higher (68% of nests) averaged 69 days; nests with nest success rates below 80%, (32% of nests) averaged 75 days. The "trend line" in Figure 10 (Microsoft Excel linear regression) does not demonstrate a significant relationship between the nest success rate with length of incubation in days.

Figures 11 and 12 respectively, compare 1991-2000 nest success rates with top and bottom nest depths. Top and bottom nest depth measurements are only available from 1991-2000. Only the depths of the original nest were recorded prior to 1997, though it can be assumed all relocated nests were buried as close as possible to the depths and width of the original nest. Top and bottom nest depths refer respectively to the distance in centimeters from the surface of the sand to the top of the nest and the bottom of the nest. Linear regressions created using Microsoft Excel for both figures do not demonstrate a significant relationship between top and bottom nest depths and nest success rates. It can be concluded that other factors such as nest fertility, weather, and physical site parameters play a more significant role on nest success.



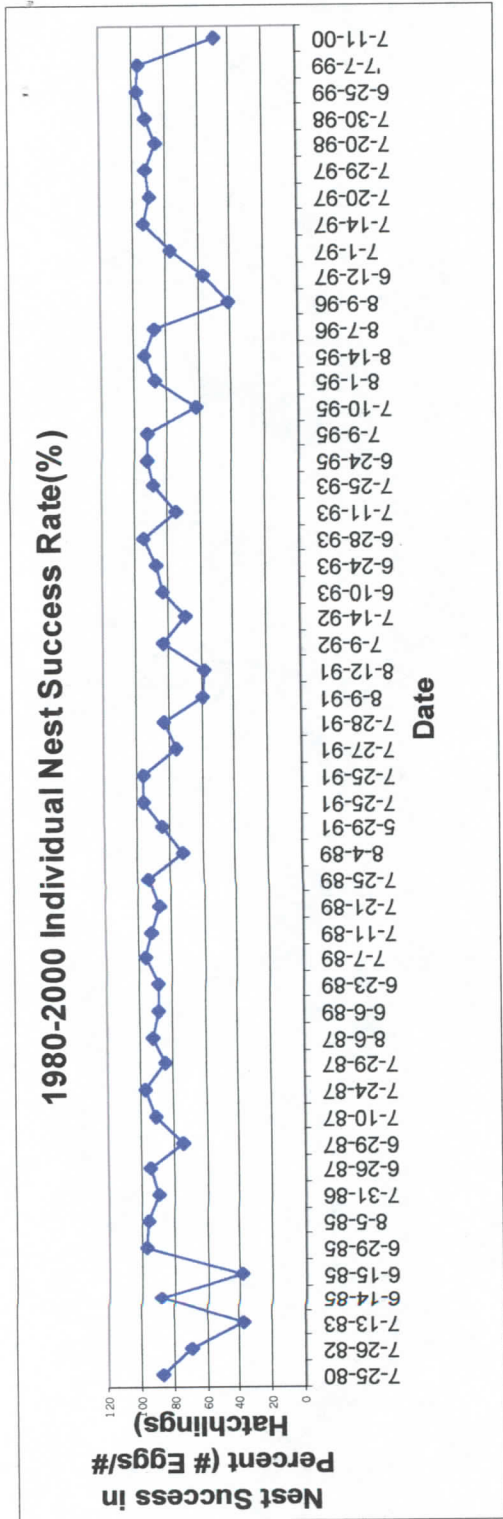
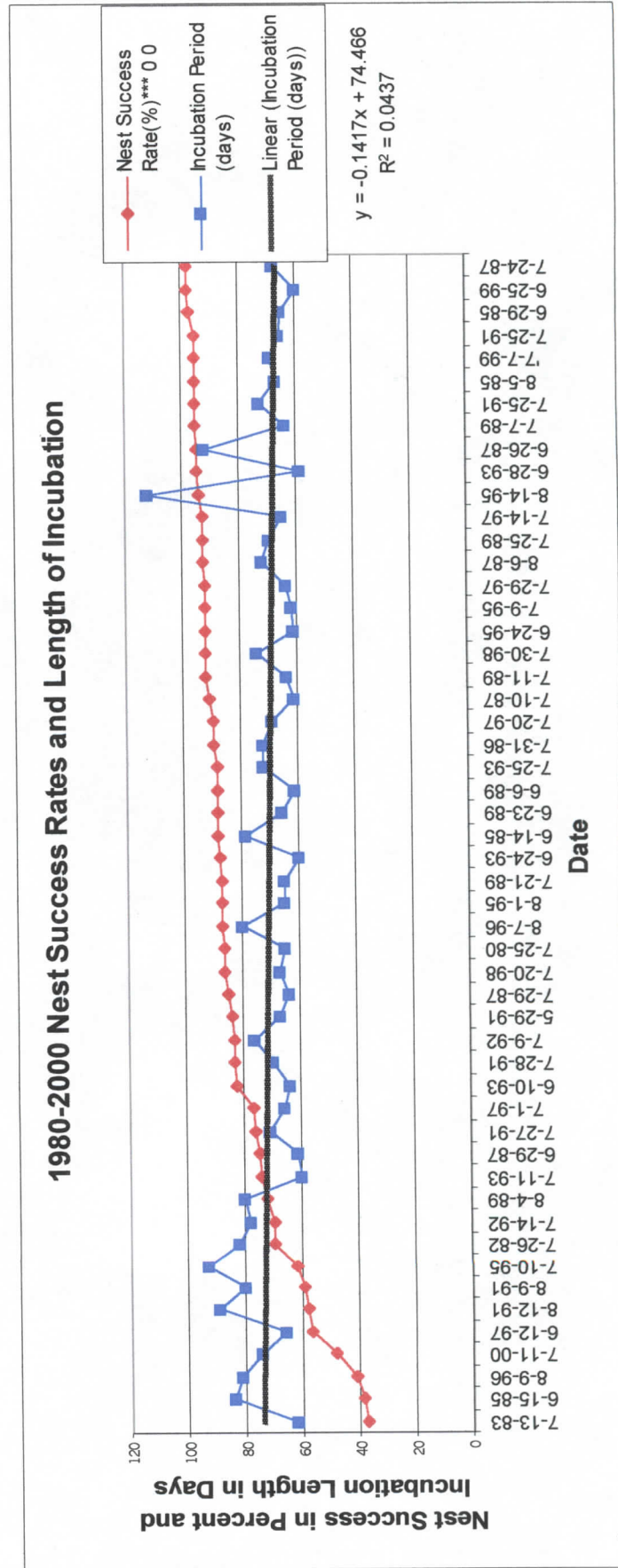


Figure 9. 1980-2000 BBNWR Individual Nest Success Rates (above).



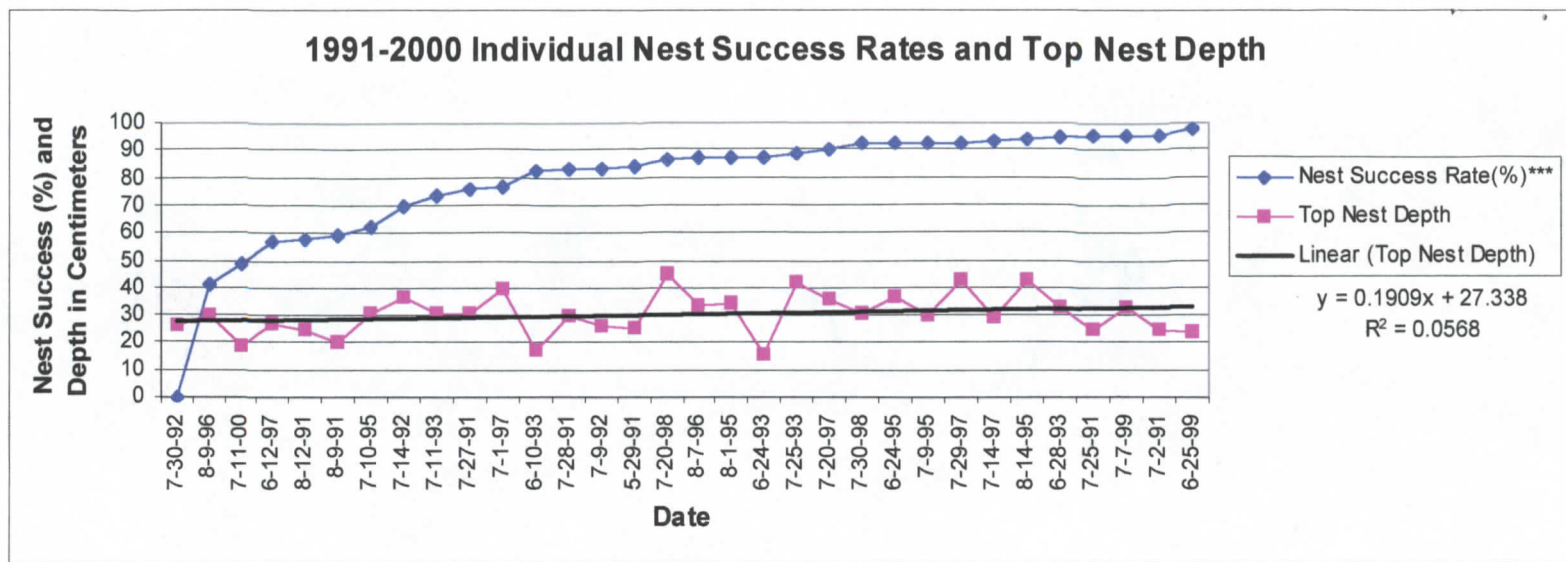


Figure 11. 1991-2000 Individual Nest Success Rates and Top Nest Depth

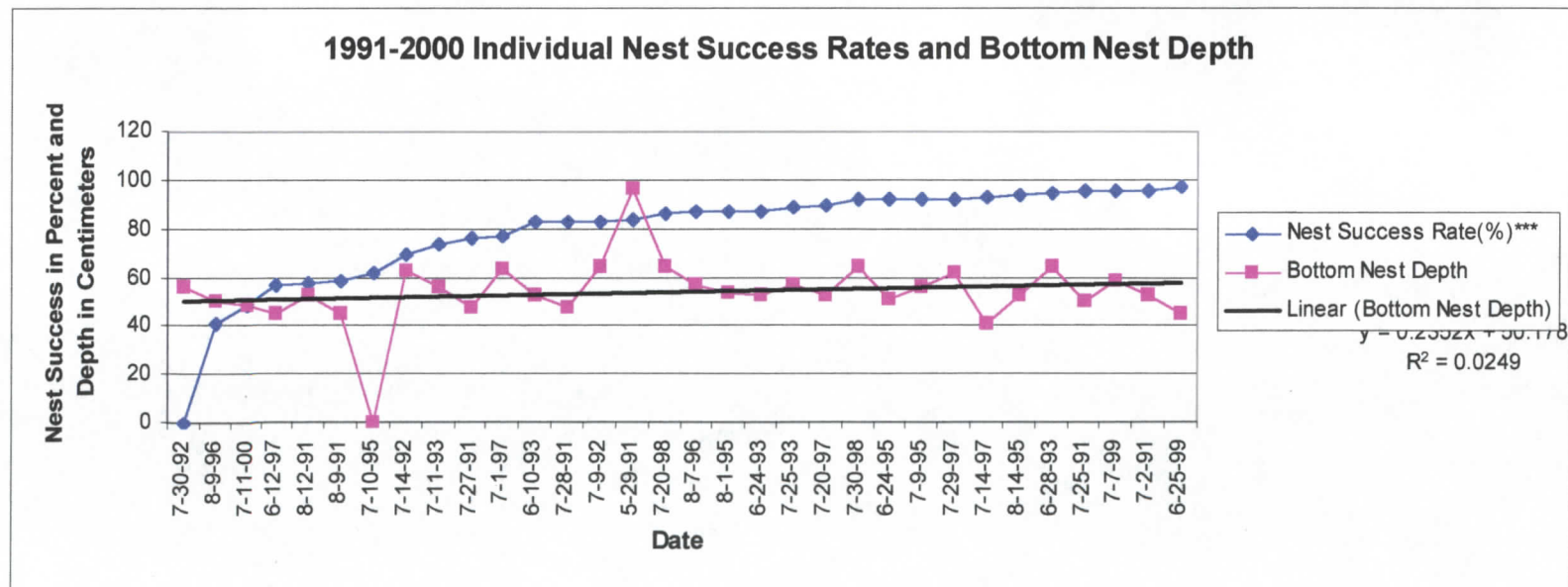


Figure 12. 1991-2000 Individual Nest Success Rates and Bottom Nest Depth

#### IV. CONCLUSIONS

Virginia Beach, Virginia provides crucial nesting habitat along the northern edge of the loggerhead sea turtle nesting range. Open beaches represent the only habitat available to nesting females in this area. Annual historical data presented in this report provide insights into this nesting sea turtle population. Loggerhead sea turtles have historically nested along the Virginia Beach shoreline, although most nests are concentrated along the twelve miles of Back Bay National Wildlife Refuge and False Cape State Park beaches. These beaches are undeveloped and have never been renourished. Nests have also occurred on beaches from Fort Story south to Sandbridge. All beaches should continue to be monitored and nests protected for the Virginia nesting population of loggerhead sea turtles to be effectively maintained, and as long as potential onshore and offshore impacts to threatened nesting Loggerhead populations continue.

During the year 2000 monitoring program, one Loggerhead sea turtle nest was discovered along the Back Bay NWR ocean-front. It was relocated to a remote nursery on Back Bay NWR. This nest yielded 56 Loggerhead hatchlings that were released shortly after emergence from the nest. The nesting female was captured, tagged, and tracked via satellite transmitter by VIMS.

Four, one-year-old Loggerheads from a Refuge nest in 1999, were also released into the Gulf Stream by US Coast Guard and Virginia Marine Science Museum staff, on November 8, 2000. Such introductions may boost the local breeding population. In addition, 37 stranded sea turtles were discovered during daily patrols. These data and collected tissue samples, should provide new and valuable information on sea turtle demographics, genetics, and population structure along the Eastern Seaboard.

Data from 1980 to 2000 reveal several interesting trends in the nesting patterns of loggerhead sea turtles in Virginia. Over a 21 year period, 54 nests occurred in Virginia Beach, 69% of which occurred on the beaches of Back Bay National Wildlife Refuge and False Cape State Park. The number of turtles nesting in Virginia Beach could vary anywhere from 2 to 8; individuals assuming there is no immigration or emmigration into or out of the population, that nesting females experience a 0% mortality, and that each nesting female nests 1-3 times every 2-3 years. The majority of turtles seem to nest on odd-numbered years (ie. 1981, 1983, etc.). The average success rate for relocated nests is 79%.

Satellite telemetry and tagging are good techniques for detecting changes in inter-nesting and post-nesting behavior. Due to the likelihood of flipper tags loss, PIT (Passive Integrated Transponder) tags are recommended. Data from nesting beaches only indicates a presence or absence of nesting, and not enough information to discriminate between mortality and/or behavioral changes of individuals.

The Historical Summary within this report (Ref. Appendices and text) should provide information useful in determining potential effects of beach replenishment projects on sea turtle nesting in this area.

Back Bay National Wildlife Refuge has been responsible for capturing nesting loggerhead turtles at night for the past eight years. We have made every effort possible to accomplish this task; but have found this responsibility puts a serious strain on Refuge volunteers, staff and equipment resources to an unacceptable level. Refuge four-wheel drive vehicles experience heavy wear-and-tear when regularly driven on patrolled beaches. Night patrols have resulted in inoperable vehicles for Refuge uses outside the sea turtle program. We do not currently have a vehicle

capable of withstanding further night patrol duties. The money to purchase a new vehicle is not available, nor is the staff time required to conduct night patrols. Appendix 4 lists a detailed summary of expenses incurred by the Corps and BBNWR for the 2000 season, including night patrols. Night patrols could not have been conducted without the help of volunteers who alleviated the stress to Refuge staff of working odd, long hours, and reduced Refuge costs. The Refuge therefore requests relinquishment of all future responsibilities for managing night patrols; and requests transfer of future funds and responsibilities to the Virginia Institute of Marine Science.

## V. LITERATURE CITED

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# **APPENDIX 1**

## **SEA TURTLE STRANDING REPORTS**



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Sara M.I. I Last Williams  
 on Back Bay National Wildlife Refuge (BBNWR)  
 4005 Sandpiper Rd., VA Beach, VA 23456

STRANDING DATE:

Year 2006 Month 10 Day 25  
 Turtle number by day 03

Field #:

State coordinator must be notified within 48 hrs:  
 this was done by ☐ phone (757) 437-6159  
☐ email ☐ fax (757) 437-4933

Area code/Phone number (757) 721-2412

SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ DC = Leatherback  
☐ EI = Hawksbill  
☐ LK = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No  
 Species verified by state coordinator? ☐ Yes ☒ No

SEX: (check one)

- ☐ Immature, undetermined  
☐ Female ☐ Male  
 How was sex determined?  
☐ Necropsy  
 Tail length (adult only)  
 n of tail beyond  
 carapace \_\_\_\_\_ cm / in



STRANDING LOCATION:

State Virginia County Virginia Beach

Descriptive location (be specific)

3/4 mile South of border of BBNWR and  
Fake Cape State Park

Latitude

Longitude

CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☒ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No  
 Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No  
 If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No  
 If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No  
 If found, record location (scute number & side)

FINAL DISPOSITION: (check one)

- ☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No (5)  
☐ 2 = Buried: ☐ on beach / ☐ off beach  
 carcass painted before buried? ☐ Yes\* ☐ No  
☒ 3 = Salvaged: ☐ all / ☒ partial, anyway? left  
front flipper

☒ 4 = Pulled up on beach/dune, painted? ☒ Yes\* ☐ No  
out of surf, 1/2 to dunes

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No  
☐ 9 = Disposition unknown, explain

\*If painted, what color? orange

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Straight length (NOTCH-TIP) \_\_\_\_\_ cm / in Circle unit

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

Using non-metal measuring tape

Curved length (NOTCH-TIP) 88 (cm) in Circle unit

Minimum length (NOTCH-NOTCH) 85.5 (cm) in

Curved width (Widest Point) 84 (cm) in

Weight ☐ actual / ☐ est. \_\_\_\_\_ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotas, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found. Bloated

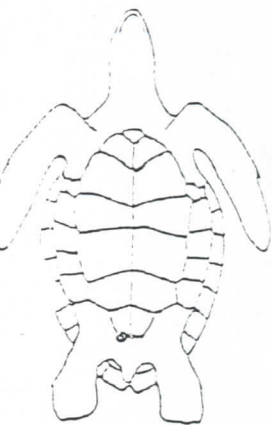
carapace covered with algae and barnacles

scutes peeling from 1st lateral

Flesh connecting neck and carapace at nuchal  
notch has been separated (about 3 inches  
in diameter) Outer layer of skin on

sides of head, neck, tips of flippers

Barnacles removed for measurements.



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Sara M.I. T Last Williams  
On Back Bay National Wildlife Refuge (BBNWR)  
Box 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 10 Day 25

Turtle number by day 02

Field #:

State coordinator must be notified within 48 hrs:

this was done by phone (757) 437-6159

email fax (757) 437-4933

SPECIES: (check one)

☐ CC = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EI = Hawksbill

☒ LK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

STRANDING LOCATION:

State Virginia

County Virginia Beach

Descriptive location (be specific)

1/4 miles N of BBNWR Beach ramp  
on Back Bay NWR

Latitude

Longitude

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☐ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

See note below

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes ☐ No

☐ 2 = Buried: ☐ on beach ☐ off beach

☒ 3 = Salvaged ☒ Yes ☐ No

carcass painted before buried

given to USMS Stranding Team

☐ 4 = Piled up on beach, none painted? ☐ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☐ No

☐ 9 = Disposition unknown, explain

If painted, what color?

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) 32.5 cm in

Minimum length (NOTCH-NOTCH) 32 cm in

Straight width (Widest Point) NA cm in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 32.5 cm in

Minimum length (NOTCH-NOTCH) 32 cm in

Curved width (Widest Point) NA cm in

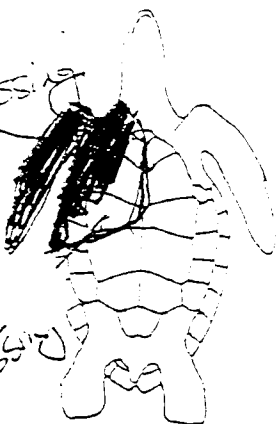
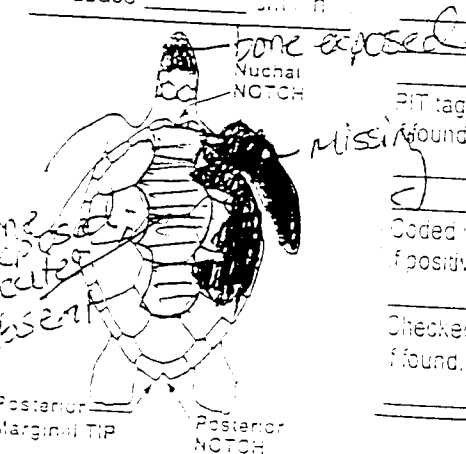
Best with estimate

Weight ☐ actual ☐ est 89 cm

Circle unit

Mark wounds / abnormalities on diagrams at left and describe below. Note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc. Please note if no wounds / abnormalities are found.

\* Flesh on head and flippers appears to have  
moderate decomposition / fresh dead. Shell is  
cracked; front right flipper is missing. All organs  
are missing (could possibly have been scavenged  
since found above high tide line on beach).





# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Sara M.I. T Last Williams

Address Back Bay National Wildlife Refuge (CBNR)  
4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 10 Day 25

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159  
☐ email ☐ fax (757)437-4933

SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ DC = Leatherback  
☐ EI = Hawksbill  
☐ LK = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state?

Coordinator? ☐ Yes ☒ No

SEX: (check one)

☐ Immature, undetermined  
☐ Female ☐ Male

How was sex determined?

☐ Necropsy

tail length (adult only)

th of tail beyond

carapace \_\_\_\_\_ cm / in

STRANDING LOCATION:

State VA

County \_\_\_\_\_

Descriptive location (be specific)

3/4 mi N Refuge Beach Ramp on  
Back Bay nwr

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☒ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

- ☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No(5)  
☒ 2 = Buried: ☐ on beach / ☐ off beach  
 carcass painted before buried? ☐ Yes\* ☐ No

☒ 4 = Picked up, condition, painted? ☐ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered: painted? ☐ Yes\* ☐ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

\*If painted, what color? \_\_\_\_\_

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Straight length (NOTCH-TIP) \_\_\_\_\_ Circle unit

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

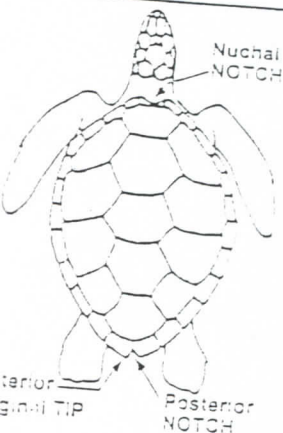
Using non-metal measuring tape

Curved length (NOTCH-TIP) 63.5 cm / in

Minimum length (NOTCH-NOTCH) 63.0 cm / in

Curved width (Widest Point) 61.5 cm / in

Weight ☐ actual / ☐ est. \_\_\_\_\_ kg / lb



Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibionts, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

left front flipper muscle sample not taken  
due to leathery hard flesh. Trapped & ghost crab  
infestation No unusual findings /  
abnormalities

# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Sara M.I. T Last Williams

On Back Bay National Wildlife Refuge

SS 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 10 Day 24

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757) 437-6159

☐ email ☐ fax (757) 437-4933

SPECIES: (check one)

☐ CC = Loggerhead

☐ CM = Green

☐ CO = Leatherback

☐ EL = Hawksbill

☒ JK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

STRANDING LOCATION:

State VA

County Virginia Beach

Descriptive location (be specific) 1/2 mile south of Wash Woods on Fake Cape State Park

Latitude

Longitude

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☒ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes ☐ No

☐ 2 = Buried ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes ☐ No

☒ 3 = Salvaged ☐ all ☐ partial, what way?

Given to Wildlife Stranding Team

☐ 4 = Picked up on beach, done, painted? ☐ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☐ No

☐ 9 = Disposition unknown, explain

☐ If painted, what color?

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Straight length (NOTCH-TIP) 29 cm/in

Minimum length (NOTCH-NOTCH) 28.5 cm/in

Straight width (widest point) 29 cm/in

Using non-metal measuring tape

Curved length (NOTCH-TIP) 29 cm/in

Minimum length (NOTCH-NOTCH) 28.5 cm/in

Curved width (widest point) 29 cm/in

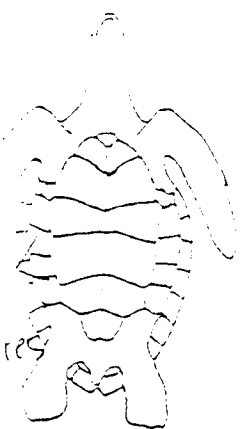
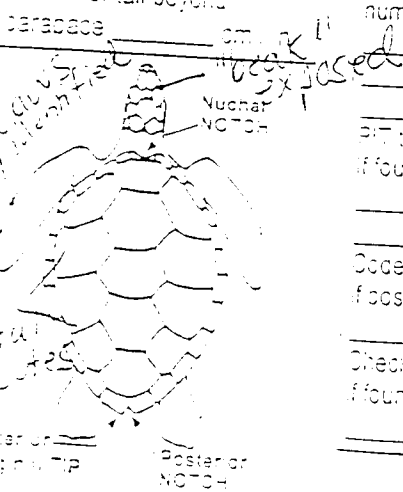
Weight ☐ actual ☐ est. kg/lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, proceller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Not investigated until frozen;

appears bloated

No unusual abnormalities



# SEA TURTLE STRANDING AND SALVAGE NETWORK – STRANDING-REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Michael M.I. C Last Farrell

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 10 Day 23

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

SPECIES: (check one)

☒ CO = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EL = Hawksbill

☐ EK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☐ No

Species verified by state

coordinator? ☐ Yes ☐ No

SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace ☐ cm in

STRANDING LOCATION:

State VA

County

Descriptive location (be specific):

Back Bay Beach 1.6 miles from False Cape

Back Bay Border (North)

Latitude

Longitude

CONDITION: (check one)

☐ 1 = Alive

☒ 2 = Fresh dead

☐ 3 = Moderately decomposed

☐ 4 = Severely decomposed

☐ 5 = Dried carcass

☐ 6 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes ☐ No

☐ 2 = Buried ☐ on beach ☐ off beach

carcass painted before burial? ☐ Yes ☐ No

☒ 3 = Salvaged ☒ all ☐ parts (what why?)

☐ 4 = Piled up on beach/dune, painted? ☐ Yes ☐ No

☐ 5 = Alive, released

☐ 6 = Alive, taken to rehab. facility where?

☐ 7 = Left floating, not recovered: painted? ☐ Yes ☐ No

☐ 8 = Disposition unknown, explain

☐ 9 = Disposition unknown, explain

☐ If painted, what color?

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag

number(s), tag location / return address

☐ If tag seen? ☐ Yes ☒ No

If found, record number / tag location

☐ Coded wire tag seen? ☐ Yes ☒ No

If positive response, record location (flipper)

☐ Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) 32.89 cm in 12

Minimum length (NOTCH-NOTCH) 32.38 cm in 12

Straight width (Widest Point) 34.69 cm in 13

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 32.89 cm in

Minimum length (NOTCH-NOTCH) 32.38 cm in

Curved width (Widest Point) 34.69 cm in

Circle unit

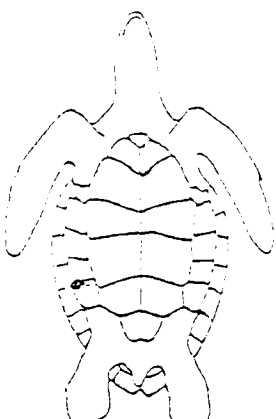
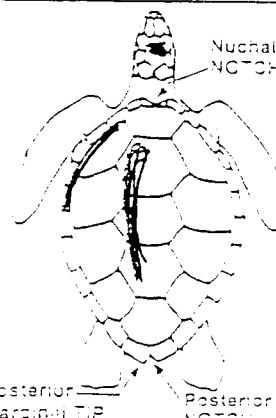
Weight ☐ actual ☐ est                      kg lb

Mark wounds, abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, proceller damage, epibionts, papillomas, emaciation, etc). Please note if no wounds / abnormalities are found.

Scutes starting to peel-up & off

eyes have been eaten

bleeding & bloated



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Michael M.I. C Last Farrell

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

## STRANDING DATE:

Year 2000 Month 09 Day 18

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

## SPECIES: (check one)

☒ CO = Loggerhead

☐ CM = Green

☐ DO = Leatherback

☐ EI = Hawksbill

☐ LF = Kemp's Ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☐ No

Species verified by state

coordinator? ☐ Yes ☐ No

## SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ girth of tail beyond

carapace \_\_\_\_\_ cm

## STRANDING LOCATION:

State Virginia County \_\_\_\_\_

Descriptive location (be specific): Back Bay NWR

~3 miles South of Back Bay NWR Beach Ramp

N 36° 38' 36.78" E W 075° 53' 48.78"

Latitude

Longitude

## CONDITION: (check one)

☐ 1 = Alive

☐ 2 = Fresh dead

☒ 3 = Moderately decomposed

☐ 4 = Severely decomposed

☐ 5 = Dried carcass

☐ 6 = Skeleton, bones only

## FINAL DISPOSITION: (check one)

☒ 1 = Left on beach where found, painted? ☒ Yes ☐ No

☐ 2 = Buried ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes ☐ No

☐ 3 = Salvaged ☐ all ☐ parts ☐ what/why?

☐ 4 = Picked up on beach/dune, painted? ☐ Yes ☐ No

☐ 5 = Alive, released

☐ 6 = Alive, taken to rehab. facility where?

☐ 7 = Left floating, not recovered: painted? ☐ Yes ☐ No

☐ 8 = Disposition unknown, explain

\*If painted, what color? Fluorescent Orange

## TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag

number(s) / tag location / return address

Flip tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length NOTCH-TIP \_\_\_\_\_ cm in

Minimum length NOTCH-NOTCH \_\_\_\_\_ cm in

Straight width Widest Point \_\_\_\_\_ cm in

Using non-metal measuring tape

Circle unit

Curved length NOTCH-TIP NA cm in

Minimum length NOTCH-NOTCH 68 cm in

Curved width Widest Point NA cm in

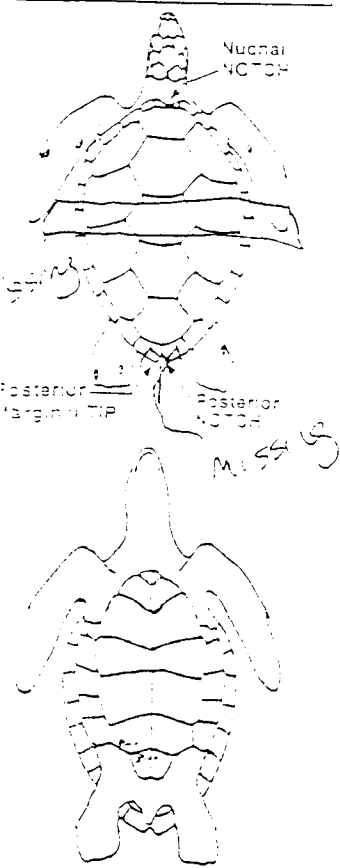
Circle unit

Weight ☐ actual ☐ est.

kg lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

\*Looks like it had been run over, scutes missing  
still has some fleshy substance  
mid Section of carapace missing  
muscle is almost in a liquid form.  
Collected tissue/skin sample.  
Barnacles on flippers



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Sara M.I. T Last Williams  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

## STRANDING DATE:

Year 2000 Month 09 Day 07  
 Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs.  
 this was done by ☐ phone (757)437-6159  
☐ email ☐ fax (757)437-4933

## SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ LC = Leatherback  
☐ EI = Hawksbill  
☐ LX = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No  
 Species verified by state coordinator? ☐ Yes ☒ No

## SEX: (check one)

- ☒ Immature ☐ Undetermined  
☐ Female ☐ Male

How was sex determined?  
☐ Necropsy  
☐ Tail length (adult only)  
 Length of tail beyond carapace \_\_\_\_\_ cm

## STRANDING LOCATION:

State VA County Virginia Beach  
 Descriptive location (be specific): 0.7 miles North of Refuge beach ramp

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

## CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☒ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No  
 Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No  
 If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No  
 If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No  
 If found, record location (scute number & side)

## FINAL DISPOSITION: (check one)

- ☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No  
☐ 2 = Buried: ☐ on beach ☐ off beach  
 carcass painted before buried? ☐ Yes\* ☐ No  
☒ 3 = Salvaged: ☐ all ☒ partial what way?  
muscle sample from front left flipper given to USFWS Stranding Center for analysis  
☒ 4 = Picked up or beach cleanup, painted? ☒ Yes\* ☐ No  
☐ 6 = Alive, released  
☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No  
☐ 9 = Disposition unknown, explain \_\_\_\_\_

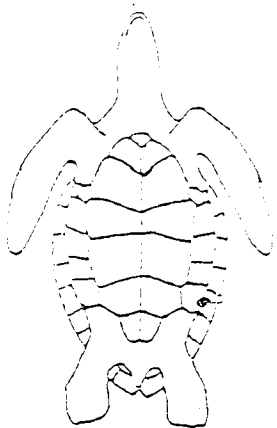
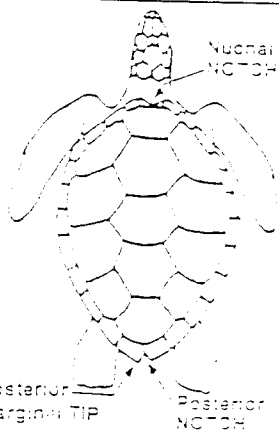
\*If painted, what color? fluorescent orange

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers Circle unit  
 Straight length (NOTCH-TIP) \_\_\_\_\_ cm/in  
 Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm/in  
 Straight width (Widest Point) \_\_\_\_\_ cm/in  
 Using non-metal measuring tape Circle unit  
 Curved length (NOTCH-TIP) 67.5 cm/in  
 Minimum length (NOTCH-NOTCH) 66.5 cm/in  
 Curved width (Widest Point) 68 cm/in  
 Weight ☐ actual ☐ est. \_\_\_\_\_ kg/lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

(Barnacles removed for measurements) No visible wounds. Severely bloated; scutes on carapace are separating, flesh is beginning to peel on top of head and rear flippers. Strong currents with NE winds ~ 20 mph could attribute to recent increase in # of strandings



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Andrew M.I. J Last Campomizzi  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd, VA Beach, VA 23456

Area code/Phone number \_\_\_\_\_

## STRANDING DATE:

Year 2000 Month 09 Day 06

Turtle number by day 03

Field #: \_\_\_\_\_

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

## SPECIES: (check one)

☒ CO = Loggerhead

☐ CM = Green

☐ LC = Leatherback

☐ EL = Hawksbill

☐ LF = Kemp's Ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

## SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length, adult only

Length of tail beyond

carapace \_\_\_\_\_ cm/in

## STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific): False Cape State Park

0.5 mile north of Barbours Hill, near border between

state park and Back Bay NWR

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

## CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☒ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

## FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No

☐ 2 = Buried ☐ on beach ☐ off beach

carcass buried before buried? ☐ Yes\* ☐ No

☐ 3 = Salvaged ☐ all ☐ partial, what way? \_\_\_\_\_

☒ 4 = Pulled up on beach/dune, painted? ☒ Yes\* ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

If painted, what color? Orange

## TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s), tag location / return address

RF tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length, NOTCH-TIP \_\_\_\_\_ cm in

Minimum length, NOTCH-NOTCH \_\_\_\_\_ cm in

Straight width (Widest Point) \_\_\_\_\_ cm in

Using non-metal measuring tape

Circle unit

Curved length, NOTCH-TIP 79.2 cm in

Minimum length, NOTCH-NOTCH 73.0 cm in

Curved width (Widest Point) N/A cm in

Circle unit

Weight ☐ actual ☐ est. \_\_\_\_\_ kg lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiosis, papillomas, emaciation, etc). Please note if no wounds / abnormalities are found.

Left side of body missing: both flippers

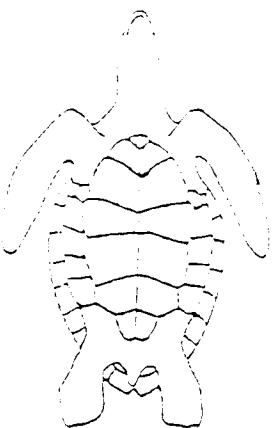
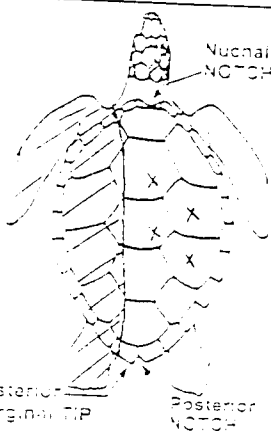
40% of Carapace missing, and 1/2 of scutes on right side (x)

most internal organs missing

missing ~~two~~ Scales on top of head (x)

mussels & Barnacles of covering 15% of Carapace

Collected right front flipper for sample





# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Andrew M.I. J Last Campomizzi  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number 757-721-2412

## STRANDING DATE:

Year 2000 Month 09 Day 06

Turtle number by day 012

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

## SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ DC = Leatherback  
☐ EI = Hawksbill  
☐ LX = Kemp's Ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

## SEX: (check one)

- ☒ Immature, undetermined  
☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

Length of tail beyond

carapace \_\_\_\_\_ cm in

## STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific): Back Bay NWR  
about 1 mile south of refuge beach ramp

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

## CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☒ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

## FINAL DISPOSITION: (check one)

- ☒ 1 = Left on beach where found, painted? ☒ Yes\* ☐ No  
☐ 2 = Buried ☐ on beach ☐ off beach  
 carcass painted before buried? ☐ Yes\* ☐ No  
☐ 3 = Salvaged ☐ all ☐ part, what part?  
☐ 4 = Pulled up on beach/dune, painted? ☐ Yes\* ☐ No  
☐ 6 = Alive, released  
☐ 7 = Alive, taken to rehab facility, where? \_\_\_\_\_

- ☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No  
☐ 9 = Disposition unknown, explain \_\_\_\_\_

\*If painted, what color? orange

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag numbers, tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) \_\_\_\_\_ cm in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm in

Straight width (Widest Point) \_\_\_\_\_ cm in

Using non-metal measuring tape

Circle unit

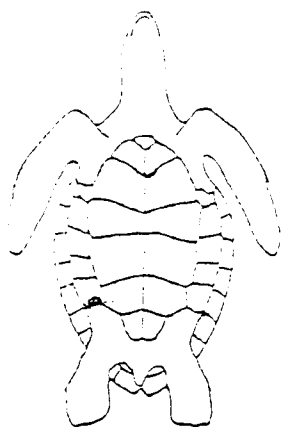
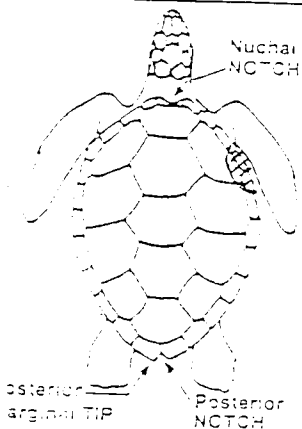
Curved length (NOTCH-TIP) 98.0 ☒ cm

Minimum length (NOTCH-NOTCH) 96.5 ☒ cm

Curved width (Widest Point) 92.4 ☒ cm

Circle unit

Weight ☐ actual ☐ est. \_\_\_\_\_ kg lb



Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear, or debris entanglement, propeller damage, epibionts, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Edge of Carapace Posterior of right front flipper broken.  
60% of Carapace Covered with barnacles

# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Andrew M.I. J Last Campanizzi  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd. VA Beach VA 23456

Area code/Phone number 757-721-2413

## STRANDING DATE:

Year 2006 Month 09 Day 06  
 Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs;  
 this was done by ☐ phone (757)437-6159  
☐ email ☐ fax (757)437-4933

## SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ DC = Leatherback  
☐ EI = Hawksbill  
☐ LK = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

## SEX: (check one)

- ☒ Immature, undetermined  
☐ Female ☐ Male

How was sex determined?

☐ Necroscopy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace ☐ cm / in

## STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific) Back Bay NWR, on the north beach  
between ranger house camp and Little Island City Park

Latitude

Longitude

## CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☒ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton bones only

## FINAL DISPOSITION: (check one)

- ☒ 1 = Left on beach where found, painted? ☒ Yes\* ☐ No  
☐ 2 = Buried: ☐ on beach ☐ off beach  
 carcass painted before buried? ☐ Yes\* ☐ No  
☐ 3 = Salvaged: ☐ all ☐ partial, what/why?  
☐ 4 = Pulled up on beach/dune, painted? ☐ Yes\* ☐ No  
☐ 6 = Alive, released  
☐ 7 = Alive, taken to rehab. facility, where?

- ☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No  
☐ 9 = Disposition unknown, explain

\*If painted, what color? Orange

## TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Straight length (NOTCH-TIP) ☐ cm / in

Minimum length (NOTCH-NOTCH) ☐ cm / in

Straight width (Widest Point) ☐ cm / in

Using non-metal measuring tape

Curved length (NOTCH-TIP) NA ☐ cm / in

Minimum length (NOTCH-NOTCH) NA ☐ cm / in

Curved width (Widest Point) NA ☐ cm / in

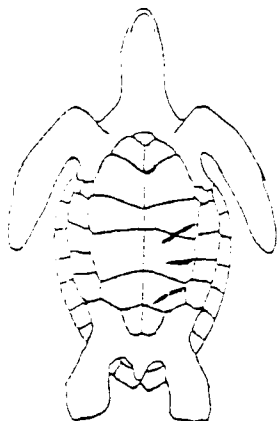
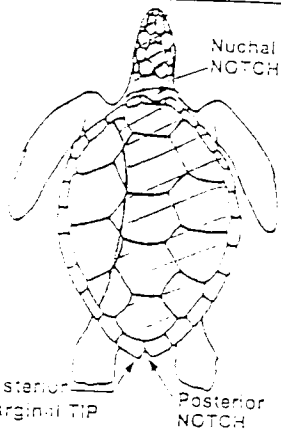
Weight ☐ actual ☐ est. ☐ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotas, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

No head

Carapace broken & mostly missing, only about 1/2 remaining  
on left side unable to take carapace measurements

Plastron broken in 3 places





Back Bay National Wildlife Refuge  
Sea Turtle Stranding Report  
Fort Story, Resort Strip, and Croatan Beach

Date 9/6/00

Turtle # By Day 1

Observer's Full Name Michael C. Farrell

Location Fort Story, 2 miles north of  
Public Beach parking (behind road bridge)

Species CC

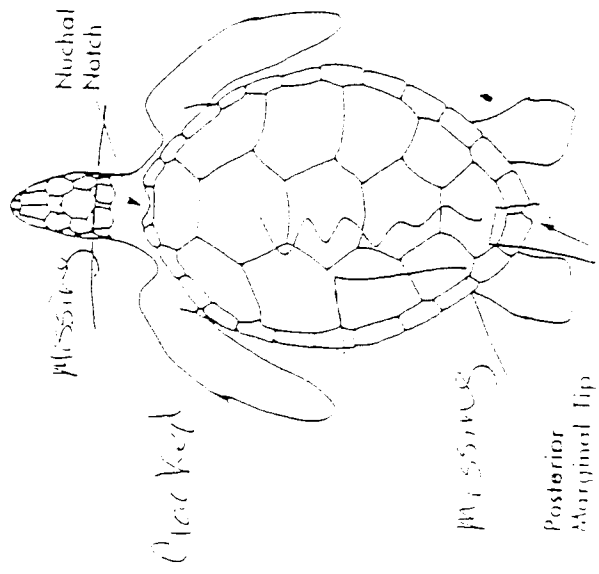
Condition 3

Remarks missing head, extremely decomposed  
carapace broken in half to ID in  
this condition, most likely a smaller  
loggerhead

Curved Length (cm) 60.96

Curved Width (cm) 27.94

Not accurate  
due to condition  
of shell



CODES:

SPECIES:

- CC = Loggerhead
- CA = Green
- DC = Leatherback
- EL = Hawksbill
- IK = Kemp's ridley
- UN = Unidentified

CONDITION OF TURTLE:

- 0 = Alive
- 1 = Fresh dead
- 2 = Moderately decomposed
- 3 = Severely decomposed
- 4 = Dried carcass
- 5 = Skeleton, bones only

(10) 4001

# Back Bay National Wildlife Refuge Sea Turtle Stranding Report

Date 9/2/00

Turtle # By Day 1

Observer's Full Name Michael C Farrell

Location Sand bridge, north of Potters Island Rd  
In grass (on the beach) of house 3266 Sand (old brick?)

Species CC

Condition 2

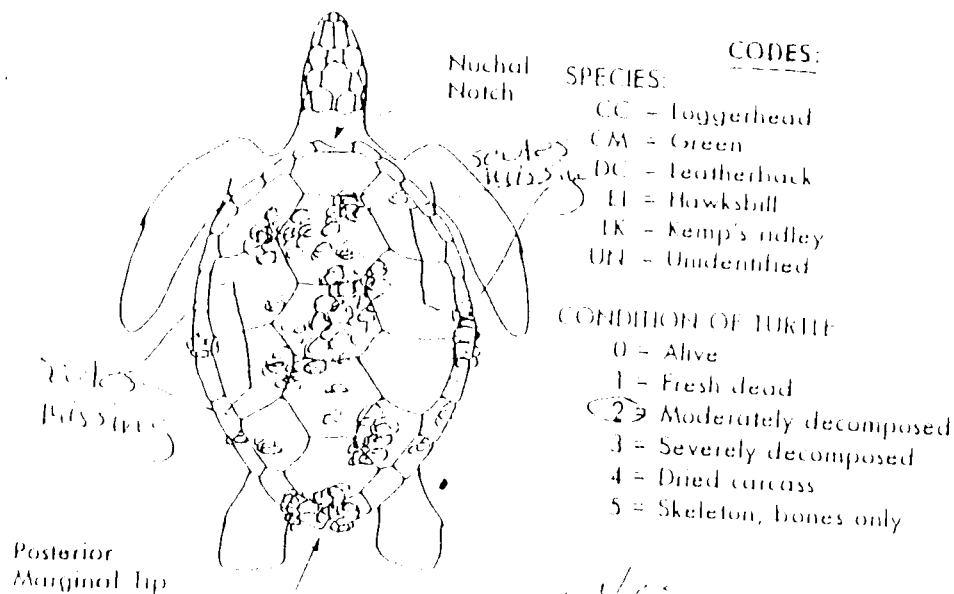
Dressed up under  
brick

Remarks

Fairly small turtle, bleached, still had some fleshy  
material still on skull

Curved Length (cm) 60.96

Curved Width (cm) 52.42



Back Bay National Wildlife Refuge  
Sea Turtle Stranding Report  
Fort Story, Resort Strip, and Croatan Beach

Date 8/30/00

Turtle # By Day 1

Observer's Full Name Michael C. Farrell

Location 1 miles North 63rd St. Beach access

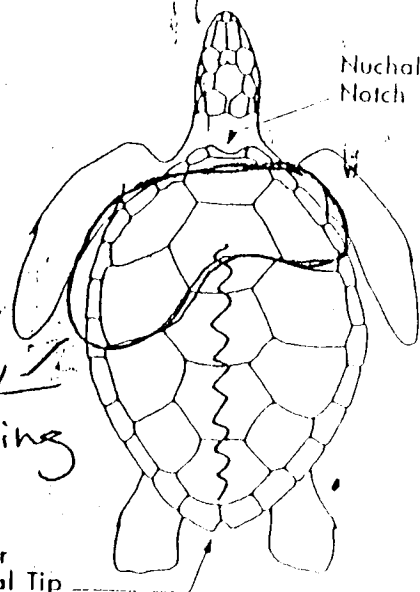
Species Loggerhead (CC)

Condition Severely Decomposed (3)

Remarks High Tide, Dragged Turtle up onto beach  
scutes missing

Curved Length (cm) 91.44

Curved Width (cm) 78.74



SPECIES:

CC = Loggerhead  
CM = Green  
DC = Leatherback  
EI = Hawksbill  
IK = Kemp's ridley  
UN = Unidentified

CODES:

CONDITION OF TURTLE:

0 = Alive  
1 = Fresh dead  
2 = Moderately decomposed  
3 = Severely decomposed  
4 = Dried carcass  
5 = Skeleton, bones only

Back Bay National Wildlife Refuge  
Sea Turtle Stranding Report

Date 8/20/00

Turtle # By Day 1

Observer's Full Name Eric Dugan

Location 3500 block of San Widdler Rd. on Sandbridge beach.

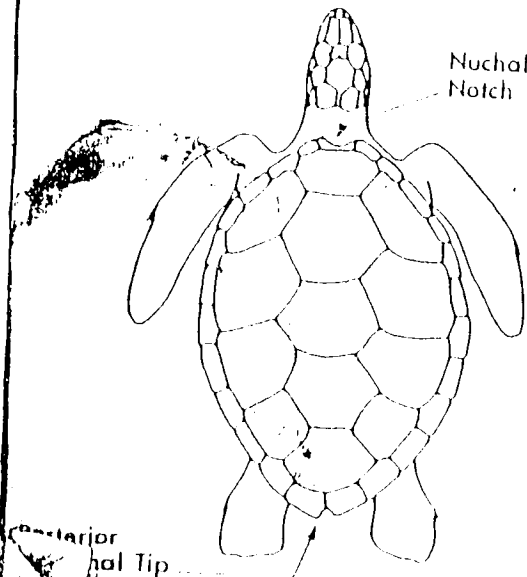
Species CC

Condition 1

Remarks Unable to move because of size, carapace heavily sliced and cracked, prob. by boat propeller. found upside down, w/ plastron up.

Curved Length (cm) unable to measure

Curved Width (cm) " "



SPECIES:

CC = Loggerhead  
CM = Green  
DC = Leatherback  
EI = Hawksbill  
IK = Kemp's ridley  
UN = Unidentified

CODES:

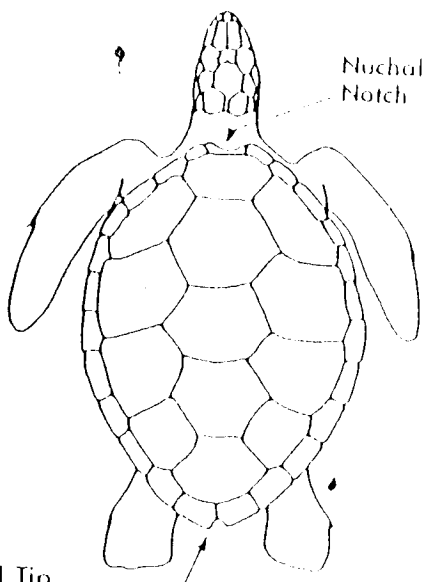
CONDITION OF TURTLE:

0 = Alive  
1 = Fresh dead  
2 = Moderately decomposed  
3 = Severely decomposed  
4 = Dried carcass  
5 = Skeleton, bones only

# Back Bay National Wildlife Refuge Sea Turtle Stranding Report

Date 8/20/00  
Turtle # By Day 1  
Observer's Full Name Eric Duran  
Location 3500 block of Sandbridge Beach.

Species CC  
Condition 1  
Remarks This was a LARGE turtle, probably over 90cm in carapace length. It was upside down in the sand and I was unable to turn it over for measurement. It had no eggs. The carapace was missing the scales (only bone showed) and there appeared to be deep, long gashes in the shell.  
Curved Length (cm) unable to determine probably caused by a boat propeller.  
Curved Width (cm) unable to determine  
VMSM Stranding Team was called.

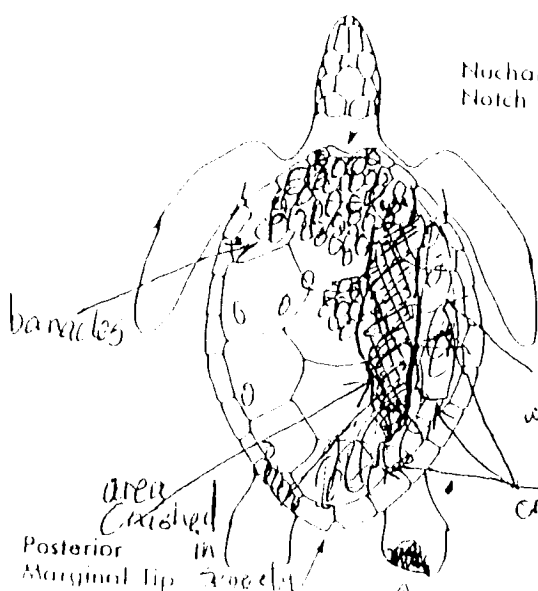


- CODES:**
- CC = Loggerhead
  - CM = Green
  - DC = Leatherback
  - EI = Hawksbill
  - IK = Kemp's ridley
  - UN = Unidentified
- CONDITION OF TURTLE:**
- 0 = Alive
  - 1 = Fresh dead
  - 2 = Moderately decomposed
  - 3 = Severely decomposed
  - 4 = Dried carcass
  - 5 = Skeleton, bones only

# Back Bay National Wildlife Refuge Sea Turtle Stranding Report

Date 8/17/00  
Turtle # By Day 1  
Observer's Full Name Eric Duran  
Location Fort Story Beach, to the North of the Public Beach Entrance, past sandbags, in front of harbor master station.  
Species CC  
Condition 1

Remarks width and length measurements probably inaccurate due to missing carapace sections and heavy barnacle encrustation, neck bloated moderately, rear right flipper break broken, eyes very swollen, back right section of plastron loose and missing, probable boat strike, 25% of right carapace crushed in or missing.  
Curved Length (cm) <n-n> 51.0 cm <n-t> 51.9 cm  
Curved Width (cm) 46.0 cm



- CODES:**
- CC = Loggerhead
  - CM = Green
  - DC = Leatherback
  - EI = Hawksbill
  - IK = Kemp's ridley
  - UN = Unidentified
- CONDITION OF TURTLE:**
- 0 = Alive
  - 1 = Fresh dead
  - 2 = Moderately decomposed
  - 3 = Severely decomposed
  - 4 = Dried carcass
  - 5 = Skeleton, bones only

# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE  
 First Christopher M.I. S Last Wizker  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:  
 Year 2010 Month 18 Day 22  
 Turtle number by day 01  
 Field #:  
 State coordinator must be notified within 48 hrs:  
 this was done by ☐ phone (757) 437-6159  
☐ email ☐ fax (757) 437-4933

SPECIES: (check one)  
☒ CC = Loggerhead  
☐ CM = Green  
☐ LC = Leatherback  
☐ EI = Hawksbill  
☐ JK = Kemp's ridley  
☐ UN = Unidentified  
 Check Unidentified if not positive. Do Not Guess.

## STRANDING LOCATION:

State Virginia County VA Beach  
 Descriptive location (be specific) Just north of North Carolina border  
In Woods Wash portion of False Cape State Park.

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

## CONDITION: (check one)

☐ 0 = Alive  
☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☒ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

## FINAL DISPOSITION: (check one)

☒ 1 = Left on beach where found, painted? ☒ Yes ☐ No  
☐ 2 = Buried ☐ on beach ☐ off beach  
 carcass painted before buried? ☐ Yes ☐ No  
☒ 3 = Salvaged ☐ all ☐ part(s) what? left for proper disposal to be sent to VIMS  
☐ 4 = Picked up on beachline, painted? ☐ Yes ☐ No  
☐ 5 = Alive, released  
☐ 6 = Alive, taken to rehab. facility where? \_\_\_\_\_  
☐ 7 = Left floating, not recovered, painted? ☐ Yes ☐ No  
☐ 8 = Disposition unknown, explain \_\_\_\_\_

If painted, what color? Orange

## TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No  
 Check all 4 flippers. If found, record tag number(s), tag location / return address

Flipper tag scan? ☐ Yes ☒ No  
 If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No  
 If positive response, record location (flipper)

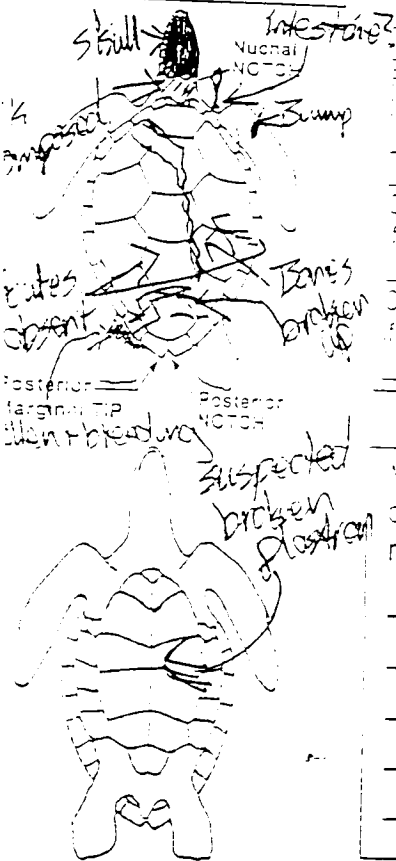
Checked for living tag? ☐ Yes ☒ No  
 If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers Circle unit  
 Straight length (NOTCH-TIP) \_\_\_\_\_ cm in  
 Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm in  
 Straight width (Widest Point) \_\_\_\_\_ cm in  
 Using non-metal measuring tape Circle unit  
 Curved length (NOTCH-TIP) 107.8 cm in  
 Minimum length (NOTCH-NOTCH) 106 cm in  
 Curved width (Widest Point) 134 cm in  
 Weight ☐ actual ☐ est. \_\_\_\_\_ kg g

Mark wounds / abnormalities on diagrams at left and describe below. Note for or on gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc. Please note if no wounds / abnormalities are found.

Neck is disorganized and deflated, with skull attached  
Scutes of carapace are absent, bones of carapace  
are broken up, orangey circles inside; scales/skin  
falling apart on neck and flippers; bump on right  
front flipper, upper left hind flipper is swollen and  
bleeding; intestine out of body; measurements  
inaccurate due to broken carapace.



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Christopher M.I. S Last Wickor

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 08 Day 22

Turtle number by day 02

Field #:

State coordinator must be notified within 48 hrs:

this was done by phone (757) 437-6159

☐ email ☐ fax (757) 437-4933

SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EI = Hawksbill

☐ LK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator ☐ Yes ☒ No

SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace          cm / in

STRANDING LOCATION:

State Virginia

County VA Beach

Descriptive location (be specific) located at Back Bay NWR beach ramp

Latitude         

Longitude         

CONDITION: (check one)

☐ 0 = Alive

☒ 1 = Fresh dead

☐ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes ☒ No

☐ 2 = Buried: ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes ☒ No

☒ 3 = Salvaged: ☐ all ☐ parts, what why?

left front flipper for sample to be sent to VIMS

☒ 4 = Picked up on beach/marine, painted? ☒ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☒ No

☐ 9 = Disposition unknown, explain

\*If painted, what color? Marine

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP)          cm / in

Minimum length (NOTCH-NOTCH)          cm / in

Straight width (Widest Point)          cm / in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 104 cm / in

Minimum length (NOTCH-NOTCH) 102.8 cm / in

Curved width (Widest Point) 52 cm / in

Weight ☐ actual ☐ est.

Circle unit

         kg / lb

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

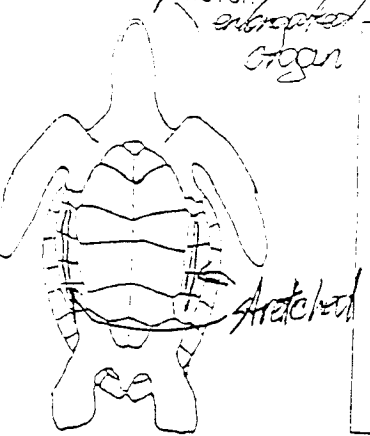
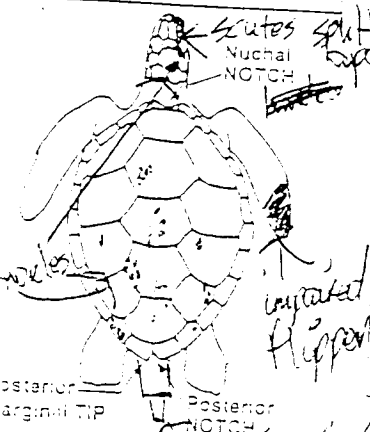
If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)



Mark wounds / abnormalities on diagrams at left and describe below (note for or oil, gear or debris entanglement, propeller damage, epibiotas, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Severely bloated, sides stretched due to bloating, blood on head and body - bloating  
some small papillomas on carapace and head -  
scutes splitting apart on head - right front flipper  
impaired - may be bitten off at younger age -  
Enlarged organ at rear end - maybe female laying eggs?



# SEA TURTLE STRANDING AND SALVAGE NETWORK – STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Eric M.I. S Last Duran

Affiliation BBNWR

Address 4500 Sandpiper

Virginia Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2007 Month 07 Day 12

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EI = Hawksbill

☐ LK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

Length of tail beyond

carapace \_\_\_\_\_ cm. in

STRANDING LOCATION:

State Virginia

County Virginia Beach

Descriptive location (be specific) on the Sandbridge Beach off of the 2700 block of Sandfiddler Rd in Virginia Beach.

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☒ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☒ Yes ☐ No

☐ 2 = Buried: ☐ on beach / ☐ off beach

carcass painted before buried? ☐ Yes ☐ No

☐ 3 = Salvaged: ☐ all / ☐ partial, what/why? \_\_\_\_\_

☐ 4 = Pulled up on beach/dune, painted? ☐ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☐ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

If painted, what color? bright orange

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address \_\_\_\_\_

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location \_\_\_\_\_

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper) \_\_\_\_\_

Checked for living tag? ☒ Yes ☐ No

If found, record location (scute number & side) \_\_\_\_\_

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) \_\_\_\_\_ cm / in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) tip absent cm / in

Minimum length (NOTCH-NOTCH) 66 cm / in

Curved width (Widest Point) 60.5 cm / in

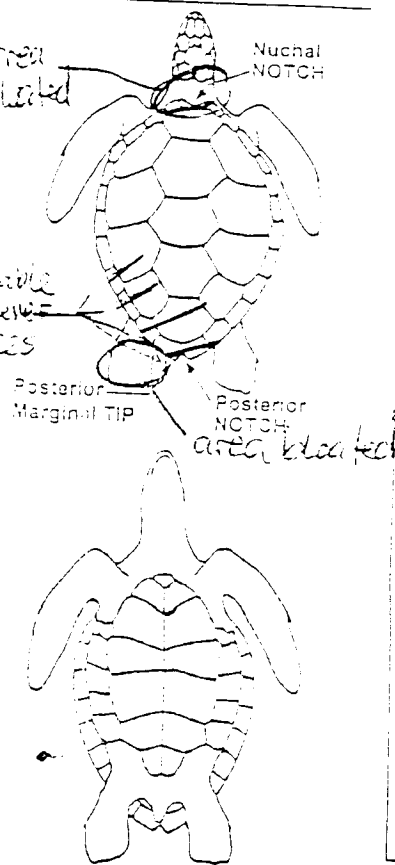
Circle unit

Weight ☐ actual / ☒ est.

130 kg ☒ lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

The neck and rear left flipper were severely bloated.  
Much of the outer layer of skin and most of the scales  
were missing from all over the body. The general coloration  
of the animal was white and yellow. There were 4 evenly  
spaced gashes/slices on the carapace, the posterior marginal  
tips were missing. When cut open, the flesh appeared  
very mushy.



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Michael M.I. C Last Farrell

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

## STRANDING DATE:

Year 2000 Month 07 Day 13

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

## SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EI = Hawksbill

☐ EK = Kemo's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

## SEX: (check one)

☐ Immature, undetermined

☐ Female ☐ Male

☐ CW was sex determined?

☐ Necropsy

☐ Tail length (adult only)

Length of tail beyond

carapace 9 cm

## STRANDING LOCATION:

State Virginia County \_\_\_\_\_

Descriptive location (be specific)

2.6 miles from Back Bay Ramp

Found in the Surf

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

## CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☒ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

## FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No

☐ 2 = Bred, ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes\* ☐ No

☒ 3 = Salvaged ☐ all ☒ partial, why?

Muscle sample removed from

front right flipper for LMISM

☒ 4 = Picked up on beach/dune, painted? ☒ Yes\* ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

\*If painted, what color? Orange

## TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag

number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit:

Straight length (NOTCH-TIP) \_\_\_\_\_ cm/in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm/in

Straight width (Widest Point) \_\_\_\_\_ cm/in

Using non-metal measuring tape

Circle unit:

Curved length (NOTCH-TIP) 69 cm/in

Minimum length (NOTCH-NOTCH) 66.5 cm/in

Curved width (Widest Point) 71 cm/in

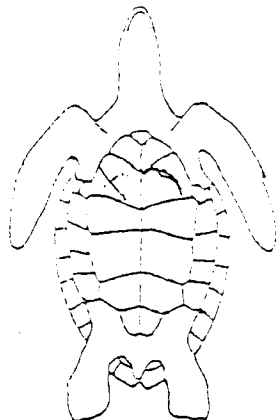
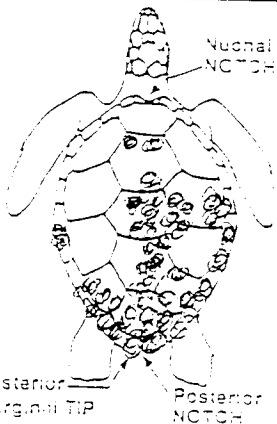
Circle unit

Weight ☐ actual ☐ est.

\_\_\_\_\_ kg/lb

Mark wounds / abnormalities on diagrams at left and describe below (note for or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Bloated Scutes popping off (eyes still intact, slight bleeding)



Back Bay National Wildlife Refuge  
Sea Turtle Stranding Report  
Fort Story, Resort Strip, and Croatan Beach

Date 6/30/00

Turtle # By Day 1

Observer's Full Name Eric Duran

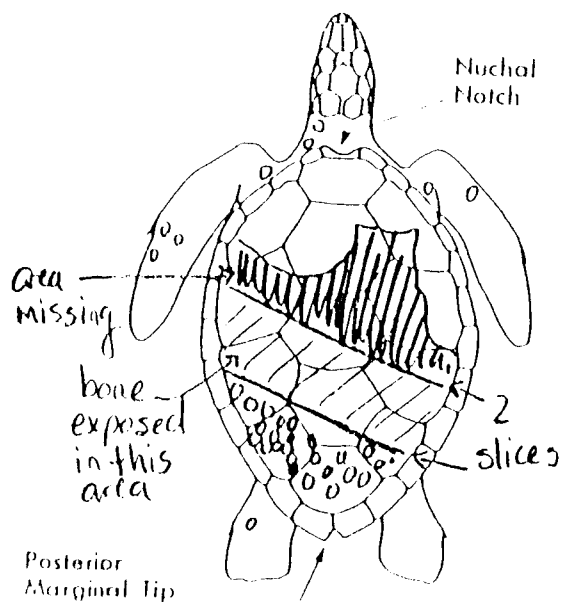
Location Fort Story; 1/4-1/2 mi. South of Public beach access

Species C. carretta (cc)

Condition Fresh Dead (1)

Remarks 2 lg. slices through shell. Lg. piece of shell missing → Viscera exposed. Shell section w/ scutes attached, heavily encrusted w/ barnacles.

Curved Length (cm) 33.5 (n-1); 32.5 (n-n)  
Curved Width (cm) 29.5



CODES:

SPECIES:

- CC = Loggerhead
- CM = Green
- DC = Leatherback
- EL = Hawksbill
- IK = Kemp's ridley
- UN = Unidentified

CONDITION OF TURTLE:

- 0 = Alive
- 1 = Fresh dead
- 2 = Moderately decomposed
- 3 = Severely decomposed
- 4 = Dried carcass
- 5 = Skeleton, bones only

# Back Bay National Wildlife Refuge Sea Turtle Stranding Report

Date 17 Apr 01

Turtle # By Day 1

Observer's Full Name Christopher Walker

Location 3208 Sandhiller Rd

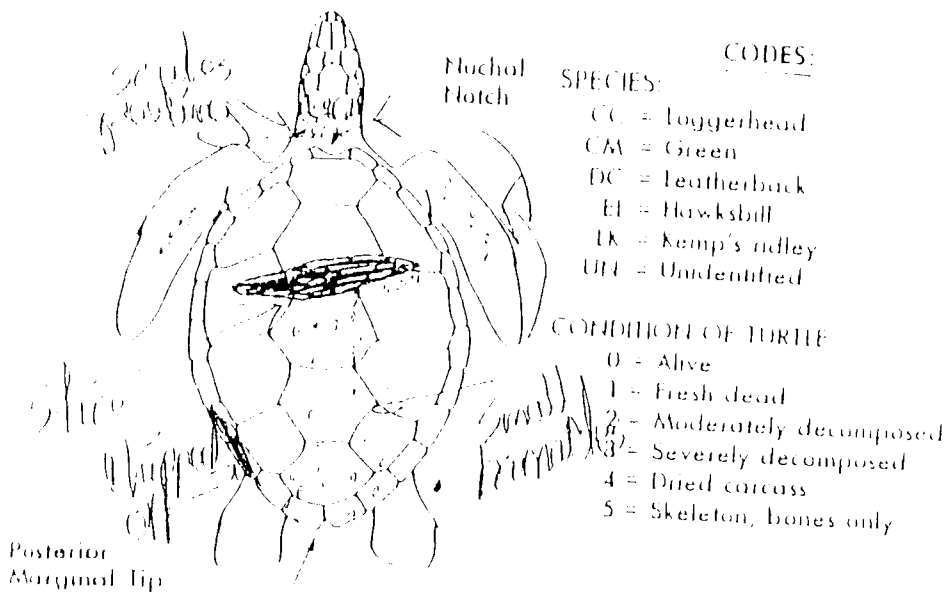
Species CC

Condition 2

Remarks One slice of an appendage: possible  
leaf propeller; small barnacles on carapace,  
front flippers, & neck. Scutes perforated on  
left side of neck; side clipped off from  
left posterior edge of carapace.  
72.2 (width, water), 77.5 (tip, water)

Curved Length (cm) 72.2

Curved Width (cm) 72.7



## CODES:

### SPECIES:

- CC = Loggerhead
- CM = Green
- DC = Leatherback
- EL = Hawksbill
- LK = Kemp's ridley
- UU = Unidentified

### CONDITION OF TURTLE

- 0 = Alive
- 1 = Fresh dead
- 2 = Moderately decomposed
- 3 = Severely decomposed
- 4 = Dried carcass
- 5 = Skeleton, bones only

Posterior  
Marginal Tip



437-6159

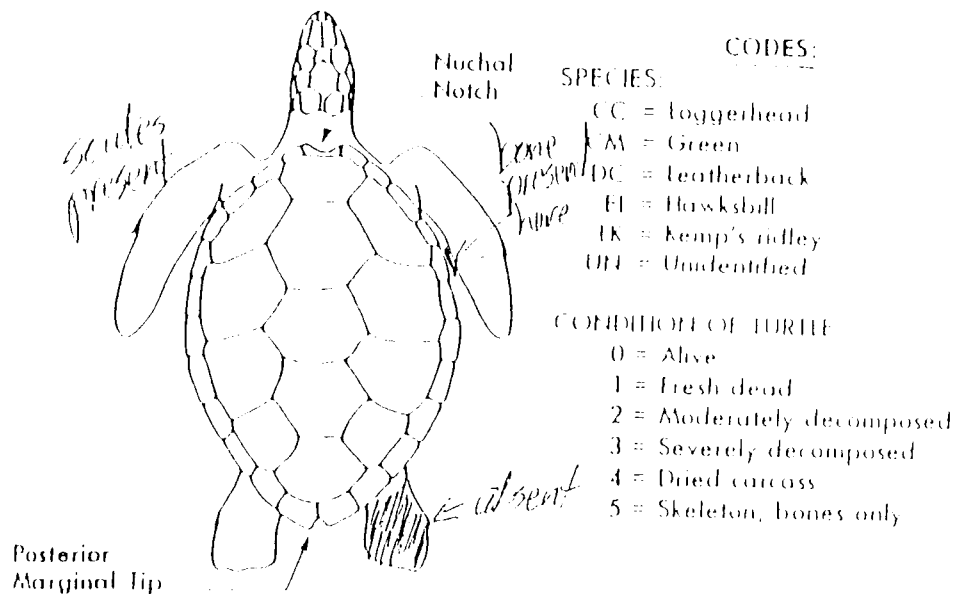
# Back Bay National Wildlife Refuge Sea Turtle Stranding Report Fort Story, Resort Strip, and Croatan Beach

Date *Dec 17-17*  
Turtle # By Day *1*  
Observer's Full Name *Christopher L. Baker*  
Location *Passing Lagoon St. from east gate. Turn right to highway master. Go to the left end of beach.*  
Species *CC* *The turtle is just around the corner.*  
Condition *1*

## Remarks

*Vent is exposed & deflated, scales are present, right hind flipper - absent, rudders present around and under the turtle*

Curved Length (cm) *71.1 (notch) - 73.4 (tip)*  
Curved Width (cm) *61*

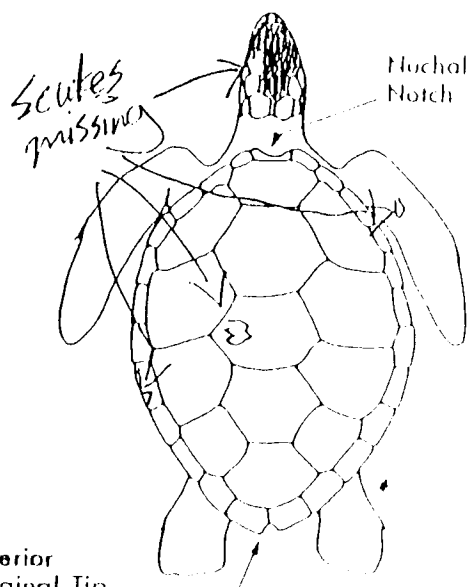




Back Bay National Wildlife Refuge  
Sea Turtle Stranding Report  
Fort Story, Resort Strip, and Croatan Beach

Date 06-06-00  
Turtle # By Day 2  
Observer's Full Name Christopher Wicker  
Location After entering West side on shore  
Dr. turn right left after Ocean Ave and walk  
Species CC half (un)to - death in beach  
Condition 1  
Remarks Blotched, no punctures seen  
some scutes missing from head, right  
flipper (front), and damage.

Curved Length (cm) 71.3 (notch), 72.8 (tip)  
Curved Width (cm) 71.4



CODES:

SPECIES:

CC = loggerhead  
CM = Green  
DC = Leatherback  
EI = Hawksbill  
LK = Kemp's ridley  
UN = Unidentified

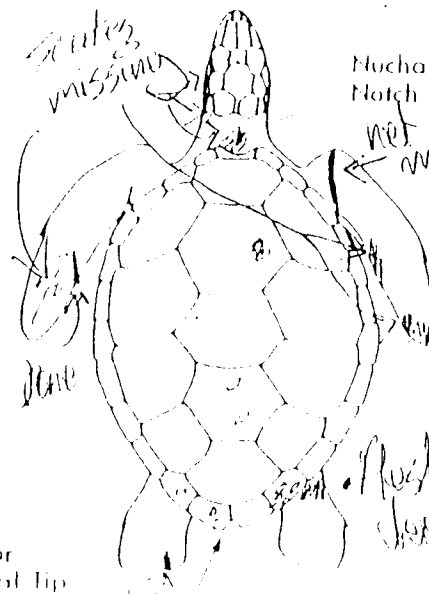
CONDITION OF TURTLE:

0 = Alive  
1 = Fresh dead  
2 = Moderately decomposed  
3 = Severely decomposed  
4 = Dried carcass  
5 = Skeleton, bones only

Back Bay National Wildlife Refuge  
Sea Turtle Stranding Report  
Fort Story, Resort Strip, and Croatan Beach

Date 06-06-00  
Turtle # By Day 1  
Observer's Full Name Christopher Wicker  
Location 6th St, behind house #4110  
Species CC  
Condition 2  
Remarks Blotched, dead skin from right  
eye, possibly a red mark on right  
flipper, rounded tips of flippers, some  
scutes missing

Curved Length (cm) 70.2 (notch), 72.8 (tip)  
Curved Width (cm) 71.4



CODES:

SPECIES:

CC = loggerhead  
CM = Green  
DC = Leatherback  
EI = Hawksbill  
LK = Kemp's ridley  
UN = Unidentified

CONDITION OF TURTLE:

0 = Alive  
1 = Fresh dead  
2 = Moderately decomposed  
3 = Severely decomposed  
4 = Dried carcass  
5 = Skeleton, bones only

# Back Bay National Wildlife Refuge Sea Turtle Stranding Report Fort Story, Resort Strip, and Croatan Beach

Date *06-17-11*  
Turtle # By Day *1*  
Observer's Full Name *Christopher Baker*  
Location *Fort Story*

Species *CC*  
Condition *2*  
Remarks *Struck against swim line, lost flipper, large cracks in posterior carapace, with exposed vertebrae*

Curved Length (cm) *61 (snout) - 77.5 (tip)*  
Curved Width (cm) *22.5*

Fluct Plot	SPECIES	CODES
	CC = Loggerhead	
	CA = Green	
	DC = Leatherback	
	FL = Hawksbill	
	TK = Kemp's ridley	
	UU = Unidentified	

CONDITION OF TURTLE	
0 = Alive	
1 = Fresh dead	
2 = Moderately decomposed	
3 = Severely decomposed	
4 = Dried carcass	
5 = Skeleton, bones only	

Posterior

# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First: Sara M.I. T Last Williams

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

## STRANDING DATE:

Year 2000 Month 06 Day 09

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs.

this was done by phone (757) 437-6159

email fax (757) 437-4933

## SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EL = Hawksbill

☐ LK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☐ No

Species verified by state

coordinator? ☐ Yes ☐ No

## SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ girth of tail beyond

carapace \_\_\_\_\_ cm / in

## STRANDING LOCATION:

State VA

County

Descriptive location (be specific)

1.3 miles south of Back Bay NWR'S Beach ramp

Latitude

Longitude

## CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☐ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☒ 4 = Dried carcass

☐ 5 = Skeleton, bones only

## FINAL DISPOSITION: (check one)

☒ 1 = Left on beach where found, painted ☒ 2 = No

☐ 2 = Buried: ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes ☐ No

☐ 3 = Salvaged: ☐ all ☐ partial, what part?

☒ 4 = Picked up on beach, done, painted ☒ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☐ No

☐ 9 = Disposition unknown, explain

\*If painted, what color? orange

## TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

Flipper tag scan? ☐ Yes ☒ No

If found, record number / tag location

Good wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) \_\_\_\_\_ cm / in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 68.5 cm / in

Minimum length (NOTCH-NOTCH) 66.5 cm / in

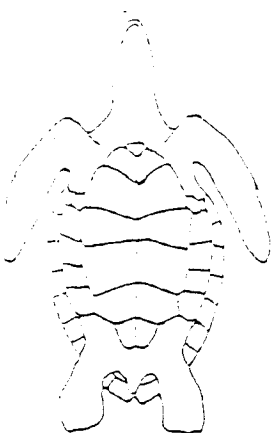
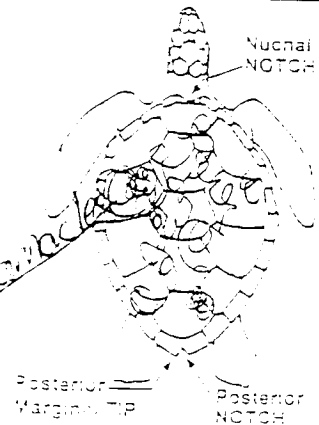
Curved width (Widest Point) 64.3 cm / in

Circle unit

Weight ☐ actual ☐ est. \_\_\_\_\_ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc). Please note if no wounds / abnormalities are found.

Barnacles covering carapace, flesh dried, skeleton exposed on front left flipper, skull, and neck



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Sara M.I. T Last Williams

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 06 Day 09

Turtle number by day 02

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757) 437-6159

☐ email ☐ fax (757) 437-4933

SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ DC = Leatherback

☐ EI = Hawksbill

☐ EK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☐ No

Species verified by state coordinator? ☐ Yes ☐ No

SEX: (check one)

☐ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace \_\_\_\_\_ cm. in

STRANDING LOCATION:

State VA

County Virginia Beach

Descriptive location (be specific) 6.3 miles south of Back

Bay NWR's Beach Ramp

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☐ 2 = Moderately decomposed

☒ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No

☐ 2 = Buried: ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes\* ☐ No

☐ 3 = Salvaged: ☐ all ☒ partial, what way?

left foot flipper removed for

Virginia Marine Science Museum

☒ 4 = Pulled up on beach/dune, painted? ☒ Yes\* ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered: painted? ☐ Yes\* ☐ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

\*If painted, what color? orange

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) \_\_\_\_\_ cm. in.

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm. in.

Straight width (Widest Point) \_\_\_\_\_ cm. in.

Using non-metal measuring tape

Circle unit

Curved length: NOTCH-TIP 101 cm in.

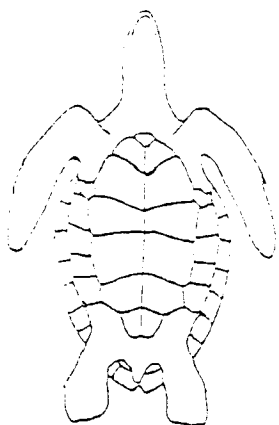
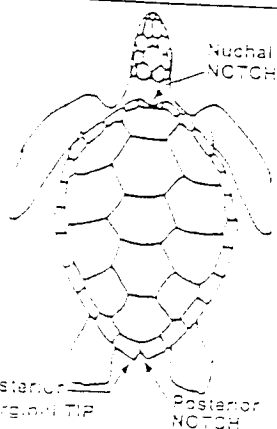
Minimum length: NOTCH-NOTCH 98.4 cm in.

Curved width: Widest Point 93 cm in.

Weight ☐ actual ☐ est. \_\_\_\_\_ kg. lb.

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotas, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

extremely bloated, all scutes  
are absent



# SEA TURTLE STRANDING AND SALVAGE NETWORK – STRANDING REPORT

## OBSERVER'S NAME / ADDRESS / PHONE:

First Bright M.I. E Last Tewey  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

## STRANDING DATE:

Year 2000 Month 06 Day 03  
 Turtle number by day 02<sup>A</sup>

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757) 437-5159  
☐ email ☐ fax (757) 437-4933

## SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ LC = Leatherback  
☐ EL = Hawksbill  
☐ LF = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No  
 Species verified by state coordinator? ☐ Yes ☒ No

## SEX: (check one)

- ☐ Immature, undetermined  
☒ Female ☐ Male  
 How was sex determined?  
☐ Necropsy  
☐ Tail length (adult only)  
 Length of tail beyond carapace \_\_\_\_\_ cm

## STRANDING LOCATION:

State Virginia County Virginia Beach  
 Descriptive location (be specific): Wash Woods FCSP

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

## CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☒ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No  
 Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No  
 If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No  
 If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No  
 If found, record location (scute number & side)

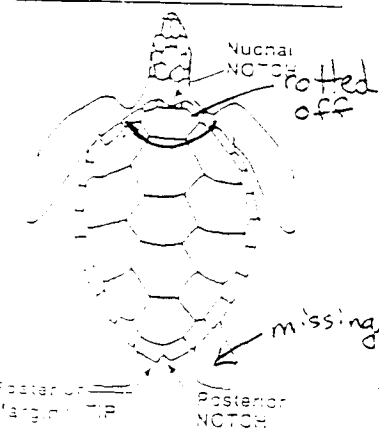
## FINAL DISPOSITION: (check one)

- ☐ 1 = Left on beach where found, painted? ☒ Yes ☐ No  
☐ 2 = Buried: ☐ on beach ☐ off beach  
 carcass buried before burial? ☐ Yes ☐ No  
☐ 3 = Salvaged: ☐ on ☐ beach ☐ anywhere  
☐ 4 = Picked up on beach/dune, painted? ☐ Yes ☐ No  
☐ 6 = Alive, released  
☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_  
☐ 8 = Left floating, not recovered, painted? ☐ Yes ☐ No  
☐ 9 = Disposition unknown, explain \_\_\_\_\_

If painted, what color? Orange

## CARAPACE MEASUREMENTS: (see drawing)

Using calipers Circle unit  
 Straight length (NOTCH-TIP) \_\_\_\_\_ cm/in  
 Minimum length NOTCH-NOTCH \_\_\_\_\_ cm/in  
 Straight width (Widest Point) \_\_\_\_\_ cm/in  
 Using non-metal measuring tape Circle unit  
 Curved length (NOTCH-TIP) 81 cm/in  
 Minimum length NOTCH-NOTCH 89 cm/in  
 Curved width (Widest Point) 75 cm/in  
 Weight ☐ actual ☐ est \_\_\_\_\_ kg/lb



Mark wounds / abnormalities on diagrams at left and describe below. Note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc. Please note if no wounds / abnormalities are found.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Christopher M.I. S Last Wickson  
 Affiliation Back Bay NWR  
 Address Long Sandpiper Rd, Vt Beach, VT  
03456  
 Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2007 Month 06 Day 05

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757)437-6159

☐ email ☐ fax (757)437-4933

SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ LC = Leatherback  
☐ EL = Hawksbill  
☐ CK = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

SEX: (check one)

- ☒ Immature, undetermined  
☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace \_\_\_\_\_ cm / in

STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific) 2.2 mi north of D.C. border

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

- ☒ 0 = Alive  
☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes\* ☒ No(5)

☐ 2 = Buried: ☐ on beach, ☐ off beach

carcass painted before buried? ☐ Yes\* ☒ No

☒ 3 = Salvaged, ☐ all ☐ parts, ☐ why/why?

Dead, pieces of meat

☒ 4 = Picked up on beach/dune, painted? ☒ Yes\* ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☒ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\*If painted, what color? CRIMSON

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag

number(s) / tag location / return address

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CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) \_\_\_\_\_ cm / in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 110.5 cm / in

Minimum length (NOTCH-NOTCH) 107.5 cm / in

Curved width (Widest Point) 124.4 cm / in

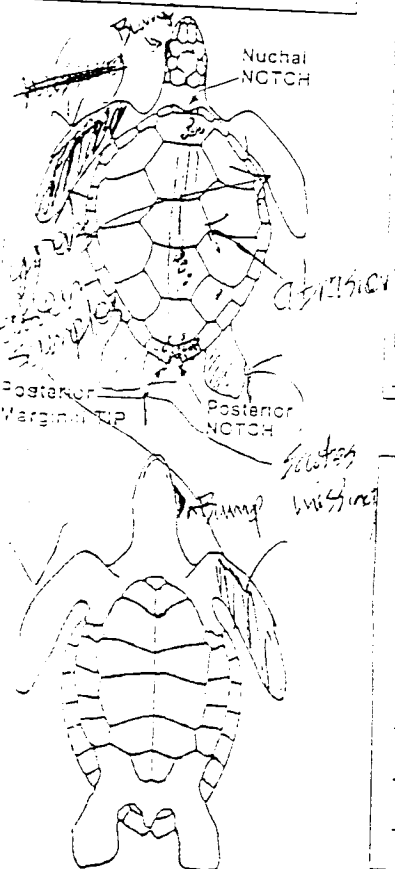
Circle unit

Weight ☐ actual ☐ est. \_\_\_\_\_ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotas, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Severely bleated, blood drain from nasal  
Small bump on beneath left flipper  
look like abrasions on carapace

both front flippers taken for samples



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Christopher M.I. S Last Wilder

Affiliation \_\_\_\_\_  
Address \_\_\_\_\_

**Back Bay National Wildlife Refuge**  
**Plum Tree Island National Wildlife Refuge**

4005 Sandpiper Road

Virginia Beach, VA 23456

Area code/Phone number

(757) 721-7112

STRANDING DATE:

Year 2000 Month 06 Day 05

Turtle number by day 02

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757) 437-6159

☐ email ☐ fax (757) 437-4933

SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ LC = Leatherback  
☐ EI = Hawksbill  
☐ LK = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state coordinator? ☐ Yes ☒ No

SEX: (check one)

- ☒ Immature, undetermined  
☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace \_\_\_\_\_ cm / in

STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific)

near northern end of ECSE

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☐ 2 = Moderately decomposed  
☒ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☒ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

FINAL DISPOSITION: (check one)

- ☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No\*  
☐ 2 = Buried: ☐ on beach ☐ off beach  
carcass painted before buried? ☐ Yes\* ☐ No\*  
☒ 3 = Salvaged: ☐ all ☒ partial, why? left frozen - sample

☒ 4 = Pulled up on beach/dune, painted? ☒ Yes\* ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

\*If painted, what color? orange

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP) \_\_\_\_\_ cm / in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 85.2 cm / in

Minimum length (NOTCH-NOTCH) 72.5 cm / in

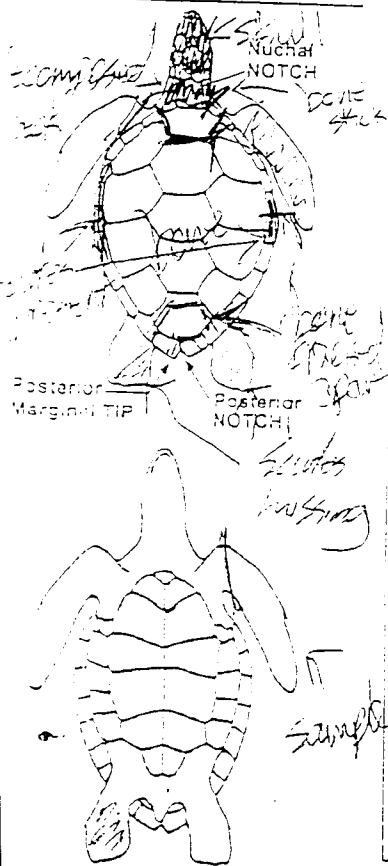
Curved width (Widest Point) 72.0 cm / in

Circle unit

Weight ☐ actual ☐ est. \_\_\_\_\_ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiota, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Black Bull decomposed, skull present.  
carapace decomposed to frame - cracked  
about in anterior + posterior of carapace  
bone stick out of decomposed neck,  
scutes missing from flippers, head, + carapace  
left flipper taken for sample.



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

RESERVER'S NAME / ADDRESS / PHONE:

First Winstanley M.I. S Last Wicker

Station Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 701-2412

STRANDING DATE:

Year 2000 Month 05 Day 31

Turtle number by day 024

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757) 437-6159

☐ email ☐ fax (757) 437-4933

SPECIES: (check one)

☐ CC = Loggerhead

☐ CM = Green

☐ CO = Leatherback

☐ Z = Hawksbill

☐ K = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

☐ Was sex determined?

☐ Necropsy

Tail length (adult only)

Length of tail beyond

carapace \_\_\_\_\_ cm / in

STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific): 2.7 mi north of NC border

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☒ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left in place where found, painted? ☐ Yes ☒ No

☐ 2 = Buried ☐ In place ☐ At beach

☐ 3 = Buried, buried, buried? ☐ Yes ☒ No

☒ 4 = Salvaged ☐ All ☐ Some ☐ What why?

VMS sample

☐ 4 = Pulled up on beach, painted? ☐ Yes ☒ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☒ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

"If painted, what color?" Orange

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length NOTCH-TP \_\_\_\_\_ cm / in

Minimum length NOTCH-NOTCH- \_\_\_\_\_ cm / in

Straight width Widest Point \_\_\_\_\_ cm / in

Using non-metal measuring tape

Circle unit

Curved length NOTCH-TP 55 cm / in

Minimum length NOTCH-NOTCH- 57.5 cm / in

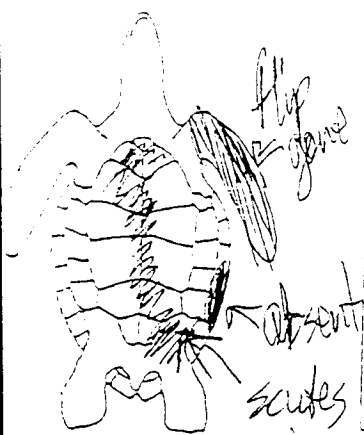
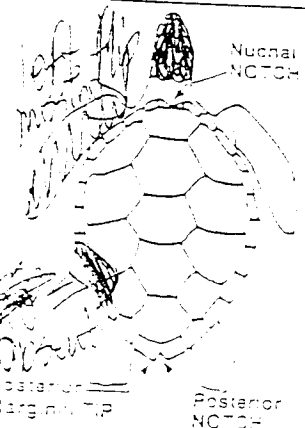
Curved width Widest Point 45.4 cm / in

Circle unit

Weight ☐ actual ☐ est \_\_\_\_\_ kg / lb

Mark wounds / abnormalities on diagrams at left and record below. Note for or of gear or debris entanglement, propeller damage, ecchymosis, papillomas, emaciation, etc. Please note if no wounds / abnormalities are found.

Left front flipper is missing, head is gone. hind left flipper is decomposing. Left lower side of carapace seems to be chipped off when young. Called VMS + took the body.



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First W. W. Wicker M.I. S. Last Wicker

Location Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 05 Day 31

Turtle number by day 13

Field #:

State coordinator must be notified within 48 hrs:

this was done by ☐ phone (757) 437-6159

☐ email ☐ fax (757) 437-4933

SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ CO = Leatherback

☐ EI = Hawksbill

☐ LA = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

SEX: (check one)

☐ Immature, undetermined

☐ Female ☐ Male

How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

☐ Length of tail beyond

carapace \_\_\_\_\_ cm

STRANDING LOCATION:

State VA

County York

Descriptive location (be specific):

nearby water

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☐ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes ☒ No

☐ 2 = Buried ☐ In beach ☐ Off beach

☐ 3 = Carcass painted before buried? ☐ Yes ☒ No

☐ 4 = Salvaged ☐ All ☐ Some ☐ None

☐ 5 = Pulled up on beach, done, painted? ☒ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☒ No

☐ 9 = Disposition unknown, explain \_\_\_\_\_

"If painted, what color? orange

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length NOTCH-TIP \_\_\_\_\_ cm in

Minimum length NOTCH-NOTCH \_\_\_\_\_ cm in

Straight width (W test Point) \_\_\_\_\_ cm in

Using non-metal measuring tape

Circle unit

Curved length NOTCH-TIP 72.7 cm in

Minimum length NOTCH-NOTCH 71 cm in

Curved width (W test Point) 70.5 cm in

Circle unit

Weight ☐ solid ☐ air \_\_\_\_\_ kg in

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag

number(s), tag location / return address

PIT tag scan? ☐ Yes ☐ No

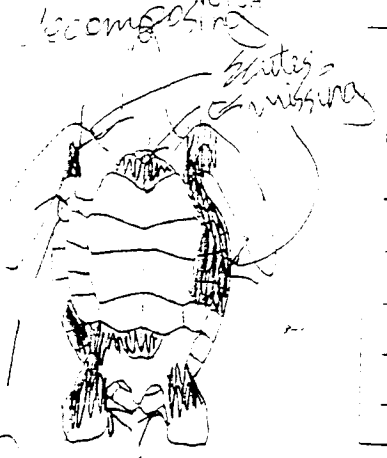
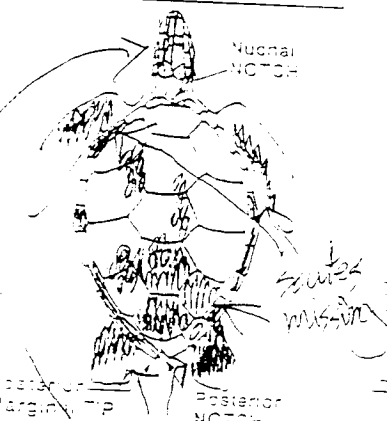
If found, record number / tag location

Coded wire tag scan? ☐ Yes ☐ No

If positive response, record location (flipper)

Checked for wing tag? ☐ Yes ☐ No

If found, record location (scute number & side)



Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, bacillomas, emaciation, etc). Please note if no wounds / abnormalities are found.

Flap. dermoxia, scutes missing from  
head and flippers, face nearly decomposed  
to bone, left front flipper  
taken.

# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Univ. Starbuck M.L. S Last Wicker

Location Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 05 Day 31

Turtle number by day 012

Field #:

State coordinator must be notified within 48 hrs.

this was done by ☐ phone 757-407-6159

☐ email ☐ fax 757-407-4930

SPECIES: (check one)

☒ CC = Loggerhead

☐ GM = Green

☐ CO = Leatherback

☐ EL = Hawksbill

☐ CK = Kemp's ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific): 1 mile south of BISHOP

VAUX

Latitude

Longitude

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☐ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton bones only

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes ☐ No

☐ 2 = Buried ☐ on beach ☐ off beach

☐ 3 = Carcass buried where found? ☐ Yes ☐ No

☒ 4 = Salvaged ☐ all ☐ part ☐ none

left front flipper  
VIMS sample

☐ 5 = Pulled up on beach/dune, painted? ☒ Yes ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes ☐ No

☐ 9 = Disposition unknown, explain

If painted, what color? orange

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s), tag location, return address

BIT tag scan? ☐ Yes ☐ No

If found, record number, tag location

Coded wire tag scan? ☐ Yes ☐ No

If positive response, record location (flipper)

Checked for wing tag? ☐ Yes ☐ No

If found, record location (scute number & side)

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length NOTCH-TP 7.5 cm in

Minimum length NOTCH-NOTCH 7.5 cm in

Straight width Widest Point 7.5 cm in

Using non-metal measuring tape

Circle unit

Curved length NOTCH-TP 7.5 cm in

Minimum length NOTCH-NOTCH 7.5 cm in

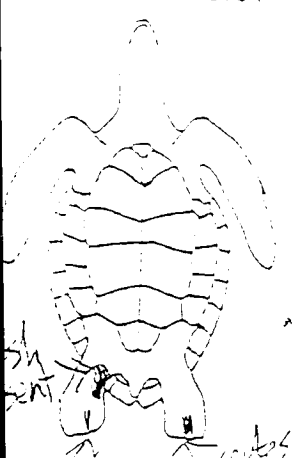
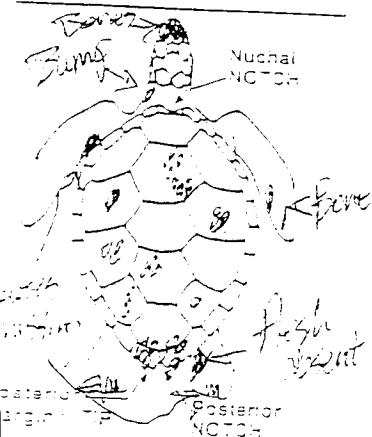
Curved width Widest Point 7.5 cm in

Circle unit

Weight ☐ solid ☐ eat 1.5 g

Mark wounds / abnormalities on diagrams at left and describe below (note for entanglement, debris entanglement, proceller damage, epidermal papillomas, emaciation, etc). Please note if no wounds / abnormalities are found.

Blacked face decomposed & bare. Flippers  
absent on right hind flipper - probably  
decomposition, scales missing from flipper.  
Bone present on right front flipper.  
left front flipper taken





# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Christopher M.I. S Last Wicker  
 Affiliation Back Bay National Wildlife Refuge  
 Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 05 Day 31

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs;  
 this was done by ☐ phone (757)437-6159  
☐ email ☐ fax (757)437-4933

SPECIES: (check one)

- ☒ CC = Loggerhead  
☐ CM = Green  
☐ DC = Leatherback  
☐ EI = Hawksbill  
☐ LK = Kemp's ridley  
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

SEX: (check one)

- ☒ Immature, undetermined  
☐ Female ☐ Male

How was sex determined?

☐ Necropsy

Tail length (adult only)

Length of tail beyond

carapace \_\_\_\_\_ cm / in

STRANDING LOCATION:

State VA

County VA Beach

Descriptive location (be specific)

0.5 mile south of B341WR northern border

Latitude \_\_\_\_\_

Longitude \_\_\_\_\_

CONDITION: (check one)

- ☐ 0 = Alive  
☐ 1 = Fresh dead  
☒ 2 = Moderately decomposed  
☐ 3 = Severely decomposed  
☐ 4 = Dried carcass  
☐ 5 = Skeleton, bones only

FINAL DISPOSITION: (check one)

- ☐ 1 = Left on beach where found; painted? ☐ Yes\* ☒ No(S)  
☐ 2 = Buried: ☐ on beach / ☐ off beach  
 carcass painted before buried? ☐ Yes\* ☒ No  
☒ 3 = Salvaged: ☐ all / ☐ parts; what/why?  
muscle virus sample  
☐ 4 = Pulled up on beach/dune; painted? ☒ Yes\* ☐ No  
☐ 6 = Alive, released  
☐ 7 = Alive, taken to rehab. facility, where? \_\_\_\_\_

- ☐ 8 = Left floating, not recovered; painted? ☐ Yes\* ☒ No  
☐ 9 = Disposition unknown, explain \_\_\_\_\_

\*If painted, what color? orange

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☐ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☐ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☐ No

If found, record location (scute number & side)

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Straight length (NOTCH-TIP) \_\_\_\_\_ Circle unit \_\_\_\_\_ cm / in

Minimum length (NOTCH-NOTCH) \_\_\_\_\_ cm / in

Straight width (Widest Point) \_\_\_\_\_ cm / in

Using non-metal measuring tape

Curved length (NOTCH-TIP) 66.5 Circle unit \_\_\_\_\_ cm / in

Minimum length (NOTCH-NOTCH) 65.2 Circle unit \_\_\_\_\_ cm / in

Curved width (Widest Point) 64.5 Circle unit \_\_\_\_\_ cm / in

Weight ☐ actual ☐ est. \_\_\_\_\_ kg / lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Moderately bloated, vertical fracture on chest  
Flesh absent on left hind flipper, probably by  
decomposition, bones present on both  
hind flippers, scutes missing from  
flippers; muscle sample taken



# SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Christopher M.I. S Last Wicker

Affiliation Back Bay National Wildlife Refuge

Address 4005 Sandpiper Rd., VA Beach, VA 23456

Area code/Phone number (757) 721-2412

STRANDING DATE:

Year 2000 Month 05 Day 27

Turtle number by day 01

Field #:

State coordinator must be notified within 48 hrs:

this was done by phone (757) 437-6159

email fax (757) 437-4933

SPECIES: (check one)

☒ CC = Loggerhead

☐ CM = Green

☐ LC = Leatherback

☐ EL = Hawksbill

☐ RK = Kemp's Ridley

☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Photos taken? ☐ Yes ☒ No

Species verified by state

coordinator? ☐ Yes ☒ No

SEX: (check one)

☒ Immature, undetermined

☐ Female ☐ Male

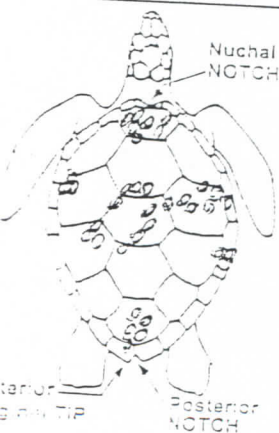
How was sex determined?

☐ Necropsy

☐ Tail length (adult only)

Length of tail beyond

carapace                      cm / in



STRANDING LOCATION:

State VA

County Jefferson

Descriptive location (be specific) Beach near Back Bay National Wildlife Refuge

Latitude                     

Longitude                     

CONDITION: (check one)

☐ 0 = Alive

☐ 1 = Fresh dead

☒ 2 = Moderately decomposed

☐ 3 = Severely decomposed

☐ 4 = Dried carcass

☐ 5 = Skeleton, bones only

TAGS: Contact state coordinator before disposing of any tagged animal!!

Flipper tags present? ☐ Yes ☒ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☐ Yes ☐ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☐ No

If positive response, record location (flipper)

Checked for living tag? ☐ Yes ☐ No

If found, record location (scute number & side)

FINAL DISPOSITION: (check one)

☐ 1 = Left on beach where found, painted? ☐ Yes\* ☐ No

☐ 2 = Buried: ☐ on beach ☐ off beach

carcass painted before buried? ☐ Yes\* ☐ No

☐ 3 = Salvaged: ☐ all / ☐ partial, what/why?

☐ 4 = Picked up on beach/dune, painted? ☒ Yes\* ☐ No

☐ 6 = Alive, released

☐ 7 = Alive, taken to rehab. facility, where?

☐ 8 = Left floating, not recovered, painted? ☐ Yes\* ☐ No

☐ 9 = Disposition unknown, explain

\*If painted, what color? Orange

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Circle unit

Straight length (NOTCH-TIP)                      cm / in

Minimum length (NOTCH-NOTCH)                      cm / in

Straight width (Widest Point)                      cm / in

Using non-metal measuring tape

Circle unit

Curved length (NOTCH-TIP) 30 cm / in

Minimum length (NOTCH-NOTCH) 24.5 cm / in

Curved width (Widest Point) 35.4 cm / in

Circle unit

Weight ☐ actual ☐ est.

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibiotic, papillomas, emaciation, etc). Please note if no wounds / abnormalities are found.

Severely debilitated no obvious wounds  
measurements not accurate due to  
baracles

# **APPENDIX 2**

## **SEA TURTLE NEST RELOCATION DATA SHEETS**



Crawl 1  
Nest 1

# DATA SHEET FOR CRAWLS & NEST RELOCATIONS

## I. General Information (weather, time, tide level, wind speed, location, etc.)

Date July 11, 2000 Tide height low at 11:24 pm Estimated air temperature 72° F  
General weather conditions (ie. % cloud cover, rainfall) 30% cloud cover  
Wind speed & direction 7 (NE) Location of crawl (include markers) 2.6  
miles south of Back Bay NWR beach camp

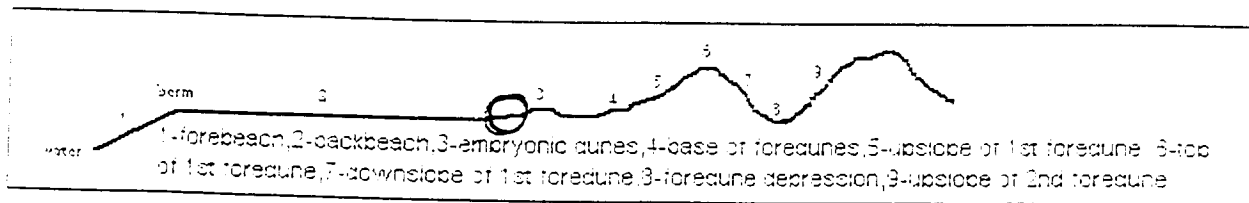
## II. Parties Involved

Lamar Gore, Sara Williams, Andrew Camponizzi, Michael Christine  
Farrell, Eric Duran, Bridget Tenney

## III. Data to be collected for Each Set of Tracks

Crawl # (ie. 1, 2, 3, ...) 1 Time crawl detected 11:05 pm Date July 11, 2000  
Track measurements: from where first visible near surf to nest site or end of crawl)  
Length of incoming tracks (m) 29.82 Length of outgoing tracks (m) 14.88  
Width of incoming tracks (cm) 90 Width of outgoing tracks (cm) 90

Flipper impressions alternate or opposite alt. Were tracks prominent? yes  
Distance from center of disturbed nesting area to toe of dunes 7.55 m  
Topographical feature at end of tracks (CIRCLE area on diagram)  
Was a nest found? yes false nest?                      false crawl only?                     



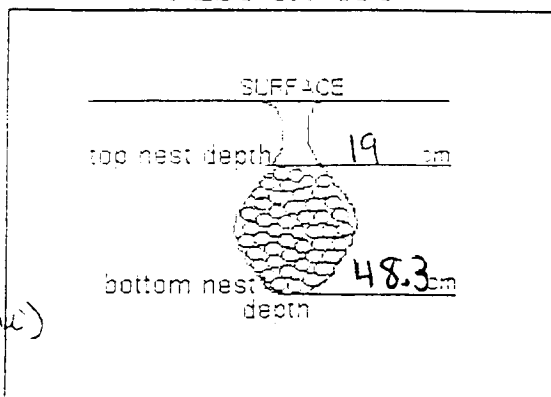
## IV. Data to be collected for Each Nest (measurements of nest, egg #, etc.)

### Original Nest Data:

Nest # (ie. 1, 2, 3, ...) 1 Crawl # 1  
Time nest excavated 12:30 am  
Width of disturbed nesting area 2.6 m  
Length of disturbed nesting area 2.5 m  
Nest cavity width at widest pt. 19.5 cm  
Nest cavity length at longest pt. 22 cm

★ Total # eggs 115  
# damaged eggs 2 (see note below)  
# broken or predated eggs 1 (see note below)  
Temperature of soil in nest cavity - NA -

### NEST CAVITY



★ Total # eggs: - 2 eggs were fused together and slightly torn at point of fushion. Fused eggs continued to tear upon removal and were not reburied with nest to reduce chance of invasion by ants or bacteria. Two fused eggs were counted as two individual eggs.  
- i egg was broken while searching for nest in body pit. Body pit was marked with flags but nest was on edge of beach and it

Comments:  
cm long elliptical, hollow egglike structure found in nest  
egg had dimple on side of shell - appeared OK

## Back Bay National Wildlife Refuge

Nest Analysis for Nest 1, ~~laid~~ July 11, 2000 -- December 13, 2000

Inspected by: John Gallegos and Sara Williams

(Eggs frozen in freezer until inspection. )

### Unhatched egg analysis:

- Developed Embryos = 28 (of varying degrees of development)
- Addled eggs = 15

### Summary of Hatching for Nest laid on July 11, 2000 Nest hatched September 24-October 5, 2000

<u>Date</u>	<u># Live Hatchlings</u>	<u># Dead Hatchlings</u>
09/24/00	22*	0
09/25/00	2	0
09/26/00	1	0
09/27/00	1	0
10/04/00	16	2
10/05/00**	14	15

\* 4 Hatchlings given to the Virginia Marine Science Museum for the Headstart Program

\*\* Nest excavated. A total of 38 eggs were removed and analyzed on December 13, 2000.

# DATA SHEET FOR CRAWLS & NEST RELOCATIONS

## I. General Information (weather, time, tide level, wind speed, location, etc.)

Date July 16, 2000 Tide height falling Estimated air temperature 86°F  
 General weather conditions (ie. % cloud cover, rainfall) 50% cloud cover  
 Wind speed & direction \_\_\_\_\_ Location of crawl (~, include markers) 150 m  
North of False Cape State Park / North Carolina border

→ turtle probably came up 2 hours after July 15th 7:54pm high tide

## II. Parties Involved

Lamar Gore, Sara Williams, Andrew Campanuzzi, Eric Duran,  
Candlyce Lockier,

## III. Data to be collected for Each Set of Tracks

→ Anthony D'Andre from False Cape State Park found crawl at 11:20 pm 7/16

Crawl # (ie. 1, 2, 3, ...) 2 Time crawl detected 10:15 am Date July 16, 2000

contact with Refuge Camp at 8:40 am (7/16)

Track measurements: (from where first visible near surf to nest site or end of crawl)

Length of incoming tracks (m) 19.1 Length of outgoing tracks (m) 24.7

Width of incoming tracks (cm) 95 cm Width of outgoing tracks (cm) 92 cm goal measurement

↳ sand soft, measurement inaccurate

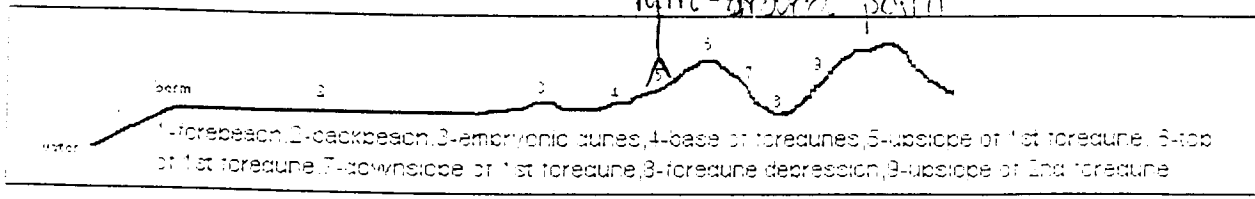
Flipper impressions alternate or opposite alt Were tracks prominent? yes (outgoing only)

Distance from center of disturbed nesting area to toe of dunes 0

Topographical feature at end of tracks (CIRCLE area on diagram)

Was a nest found? no false nest? no false crawl only? yes

turn-around point



## IV. Data to be collected for Each Nest (measurements of nest, egg #, etc.)

### Original Nest Data:

Nest # (ie. 1, 2, 3, ...) \_\_\_\_\_ Crawl # \_\_\_\_\_

Time nest excavated \_\_\_\_\_

Width of disturbed ~~nesting~~ area 1.75 m

Length of disturbed ~~nesting~~ area 1.74 m

Nest cavity width at widest pt. \_\_\_\_\_

Nest cavity length at longest pt. \_\_\_\_\_

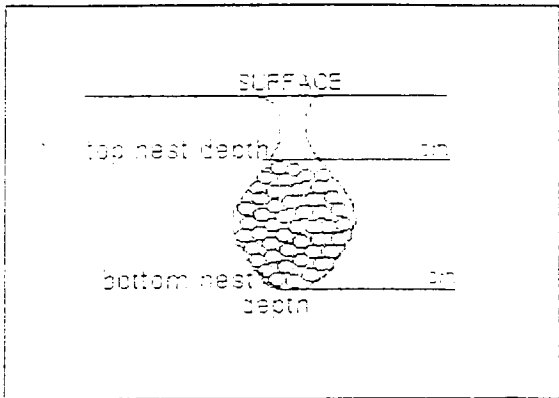
Total # eggs \_\_\_\_\_

#damaged eggs \_\_\_\_\_

#broken or predated eggs \_\_\_\_\_

Temperature of soil in nest cavity \_\_\_\_\_

### NEST CAVITY





# **APPENDIX 3**

## **VMSM STRANDING TEAM 1999-2000** **HATCHLING REPORT**



To: John Stasko, John Gallegos and Sara Williams  
Back Bay National Wildlife Refuge

Subject: Report on 1999-2000 sea turtle hatchlings at VMSM

Hello everyone. I have attached a report on the 1999-2000 sea turtle hatchlings for your records. The report summarizes the year in which these sea turtles were in the care of the museum. As you can see, it was a very successful year for the turtles and for the museum. We were able to continue our studies of the early growth and development of loggerhead sea turtles. This important information will eventually lead to a manuscript documenting results of several years of growth studies and the husbandry techniques developed to properly care for hatchling sea turtles. We are committed to advancing the husbandry of sea turtles in our care and sharing this information with other organizations involved in similar research, rescue and education activities related to sea turtles.

Equally important, these sea turtles have been part of a special educational experience for hundreds of thousands of people and tens of thousands of students. The value of seeing living animals as part of a learning experience is tremendous and we at the museum are able to see this on a daily basis through interactions with our many visitors. The continuing cooperation and participation of Back Bay National Wildlife Refuge with our sea turtle research and education programs and our stranding response efforts is very gratifying and rewarding. I am sure you feel the same way about these important cooperative efforts.

On behalf of myself, Beth Firchau (Curator in charge of sea turtle husbandry), Thomas Harder (Aquarist responsible for the sea turtle hatchlings), and the rest of our staff, thanks for your continued support and participation in these sea turtle programs. Have a great holiday season.

Sincerely,

W. Mark Swingle  
Curator of Stranding Program & Acquisitions

**VIRGINIA MARINE SCIENCE MUSEUM  
REPORT TO BACK BAY NATIONAL WILDLIFE REFUGE  
1999-2000 LOGGERHEAD SEA TURTLE HATCHLINGS**

prepared by W. Mark Swingle, Curator  
December 20, 2000

**Arrival:**

Four loggerhead hatchlings were received by the Virginia Marine Science Museum (VMSM) from Nest #1 on Back Bay National Wildlife Refuge (BBNWR) on August 26, 1999. The hatchlings were in excellent health and were examined by museum veterinarian, Dr. Robert George, on September 9, 1999. At this time, all hatchlings were eating well and gaining weight.

**Year at VMSM:**

During the course of the next year, the hatchlings were reared in a specially designed holding system on exhibit at the VMSM. Water quality is maintained by a life support system which delivers continuous circulation of natural seawater at a temperature of 24.5° C and a salinity of 30 ppt (parts per thousand). The exhibit is designed to inform visitors about the life history and ecology of Virginia's sea turtles and to show the early development of loggerhead sea turtles. Visitors can observe the care and feeding of the young sea turtles and also the weekly measurements of their growth by the animal care staff. The progress of their growth is displayed during the year as part of the exhibit. The museum welcomed more than 600,000 visitors, including more than 70,000 students, during the year in which these young sea turtles were in our care.

While in the care of the museum, the sea turtles were fed daily and their growth was measured on a weekly basis. The growth and development of the individual turtles was determined by measuring their weight (recorded in grams), their carapace length from nuchal notch to posterior notch (recorded in centimeters and abbreviated as CL N-N), and their carapace width at the widest point (recorded in centimeters and abbreviated as CW). In addition, the mass of food consumed by each individual turtle was also recorded as part of the museum's ongoing efforts to study and advance the husbandry of sea turtles. Summaries of the growth and development of these young loggerheads are reported in the attached tables for your reference.

**Release:**

As the time approached for their release, the individual turtles were tagged with subcutaneous pit tags. The following pit tag numbers are associated with each turtle.

<u>Turtle Number</u>	<u>Pit Tag Number</u>
#2	414D211507
#3	414D235434
#4	414D2F6006
#5	414D106813

In addition, a blood sample was obtained from each individual turtle for routine screening by Dr. George prior to release. The results of the blood tests are also included as attachments for your reference.

The release of the turtles was coordinated with the U.S. Coast Guard (USCG). Museum staff member, Brian Russell, accompanied the turtles. The release was conducted from the USCG Cutter Albacore under the command of Captain Peter Niles on 11-09-2000. Details of the release were as follows:

Location:	36 22.5N    74 25.3W
Time:	0100
Salinity:	34 ppt (parts per thousand)
Water temp:	the thermometer on the ship was not believed to be accurate, however the captain verified the location as warm waters of the Gulf Stream.

**VIRGINIA MARINE SCIENCE MUSEUM  
BBNWR LOGGERHEAD NUMBER 2 GROWTH RECORD**

DATE	WT. (gm)	CL N-N (cm)	CW (cm)	FOOD WT. (gm)	FOOD	COMMENTS
09/10/99	34.3	5.01	4.18	~20pcs	scallops	
10/08/99	90	8.27	6.77	~40pcs	shrimp	
11/12/99	188	9.9	8.5	9.61g	gel	
12/10/99	293	11.8	9.8	13g	gel	
01/12/00	473	13.2	11.0	16g	gel	
02/09/00	618	14.7	12.7	18g	gel	
03/08/00	893	16.9	14.3	24g	gel	
04/12/00	1177	18.6	15.9	32g	gel	
05/10/00	1457	20.2	17.2	28g	gel	
06/07/00	1610	21.4	18.2	15g	gel	
07/12/00	1925	22.6	19.1	23g	gel	
08/09/00	2125	23.6	19.9	26g	gel	
09/13/00	2319	24.6	20.9	31g	squid	fed various foods in this month
10/11/00	2839	25.6	21.7	55g	smelt	fed various foods in this month
11/01/00	3125	26.6	22.6	56g	crab	

**VIRGINIA MARINE SCIENCE MUSEUM  
BBNWR LOGGERHEAD NUMBER 3 GROWTH RECORD**

DATE	WT. (gm)	CL N-N (cm)	CW (cm)	FOOD WT. (gm)	FOOD	COMMENTS
09/10/99	34.3	5.01	4.18	~20pcs	scallops	
10/08/99	102	8.75	7.23	~40pcs	shrimp	
11/12/99	212	10.6	9.3	10.73g	gel	
12/10/99	337	12.6	10.6	15g	gel	
01/12/00	564	14.1	12.0	18g	gel	
02/09/00	704	15.4	13.5	20g	gel	
03/08/00	1017	17.7	15.1	28g	gel	
04/12/00	1351	19.6	16.9	37g	gel	
05/10/00	1641	21.6	18.1	33g	gel	
06/07/00	1847	22.7	19.2	19g	gel	
07/12/00	2221	24.0	20.3	33g	gel	
08/09/00	2528	25.1	21.1	31g	gel	
09/13/00	2890	26.4	22.2	37g	squid	fed various foods in this month
10/11/00	3359	27.4	23.0	64g	smelt	fed various foods in this month
11/01/00	3785	28.6	24.0	67g	crab	



**VIRGINIA MARINE SCIENCE MUSEUM  
BBNWR LOGGERHEAD NUMBER 4 GROWTH RECORD**

DATE	WT. (gm)	CL N-N (cm)	CW (cm)	FOOD WT. (gm)	FOOD	COMMENTS
09/10/99	33	5.01	3.97	~20pcs	scallops	
10/08/99	88	8.35	7.03	~40pcs	shrimp	
11/12/99	205	10.1	9.1	10.32g	gel	
12/10/99	324	12.1	10.5	15g	gel	
01/12/00	573	14.1	11.8	18g	gel	
02/09/00	759	15.5	13.7	20g	gel	
03/08/00	992	17.9	15.1	28g	gel	
04/12/00	1281	19.5	16.6	37g	gel	
05/10/00	1591	20.9	17.8	31g	gel	
06/07/00	1673	22.3	18.5	17g	gel	
07/12/00	2085	23.6	20.1	26g	gel	
08/09/00	2340	24.8	20.9	28g	gel	
09/13/00	2664	26.1	21.8	35g	squid	fed various foods in this month
10/11/00	3123	27.1	22.7	60.5g	smelt	fed various foods in this month
11/01/00	3589	28.2	23.5	62g	crab	

**VIRGINIA MARINE SCIENCE MUSEUM  
BBNWR LOGGERHEAD NUMBER 5 GROWTH RECORD**

DATE	WT. (gm)	CL N-N (cm)	CW (cm)	FOOD WT. (gm)	FOOD	COMMENTS
09/10/99	34.8	5.22	4.18	~20pcs	scallops	
10/08/99	101	8.95	7.44	~40pcs	shrimp	
11/12/99	251	11.1	10.0	12.67g	gel	
12/10/99	401	13.2	11.5	19g	gel	
01/12/00	699	15.4	13.2	24g	gel	
02/09/00	916	16.8	14.7	13g	gel	
03/08/00	1282	19.3	16.3	36g	gel	
04/12/00	1662	21.3	17.8	46g	gel	
05/10/00	2033	23.0	19.1	40g	gel	
06/07/00	2189	24.4	20.2	22g	gel	
07/12/00	2658	26.1	21.9	33g	gel	
08/09/00	3024	27.4	22.4	37g	gel	
09/13/00	3425	28.5	23.7	35g	squid	fed various foods in this month
10/11/00	3921	29.4	24.7	67g	smelt	fed various foods in this month
11/01/00	4206	29.9	25.5	68g	crab	



VIRGINIA BEACH  
GENERAL HOSPITAL  
A Tidewater Health Care Facility

DEPARTMENT OF PATHOLOGY

R. Lawrence Smith, M.D., Valerio M. Genta, M.D., Robert A. Frazier, Jr., M.D.

NAME: VMSM, SEATURTLE 02 -  
PT #: 0420-1 yearling cc  
DOB: 00000000 pre-release  
LOC: VA MARINE SCI MUS, COLLECTIONS  
PHY: GEORGE, ROBERT DVM  
SEX: U

CHEMISTRY

DATE:	10/24/00		NORMAL	UNITS
TIME:	2001			
SODIUM	160 *		133-145	MMOL/L
	RC			
POTASSIUM	4.8		3.3-5.1	MMOL/L
CHLORIDE	126 H		96-108	MMOL/L
CO2	28		22.0-29.0	MMOL/L
GLUCOSE	139 H		70-105	MG/DL
CREATININE	0.3		0-1.0	MG/DL
BUN	118 H		6-19	MG/DL
TOTAL PROTEIN	2.3 *		6.0-8.0	G/DL
	RC			
ALBUMIN	0.8			G/DL
	RC			
CALCIUM	4.5 *		8.4-10.2	MG/DL
	RC			
PHOSPHORUS	12.8 H		0.6-4.5	MG/DL
CHOLESTEROL	86 L		10-200	MG/DL
URIC ACID	0.3 L		2.3-8.3	MG/DL
BILIRUBIN, TOTAL	0.2		0.2-1.2	MG/DL
ALKALINE PHOSPHATASE	148 H		39-117	U/L
SGOT (AST)	144 H		0 /	U/L
SGPT (ALT)	8		0-40	U/L

---FOOTNOTES---

RC RESULTS CHECKED

END OF REPORT



VIRGINIA BEACH  
GENERAL HOSPITAL  
A Tidewater Health Care Facility

DEPARTMENT OF PATHOLOGY

R. Lawrence Smith, M.D., Valerio M. Genta, M.D., Robert A. Frazier, Jr., M.D.

NAME: VMSM, SEATURTLE 03  
PT #: 0420-2  
DOB: 000000000

LOC: VA MARINE SCI MUS, COLLECTIONS  
PHY: GEORGE, ROBERT DVM  
SEX: M

*yearling cc  
pre-release*

CHEMISTRY

DATE:	10/24/00		NORMAL	UNITS
TIME:	2002			
SODIUM	158 *		133-145	MMOL/L
	RC			
POTASSIUM	4.5		3.3-5.1	MMOL/L
CHLORIDE	122 H		96-108	MMOL/L
CO2	31 H		22.0-29.0	MMOL/L
GLUCOSE	150 H		70-105	MG/DL
CREATININE	0.3		0.1-1.0	MG/DL
BUN	107 H		6-19	MG/DL
TOTAL PROTEIN	2.3 *		6.0-8.0	G/DL
	RC			
ALBUMIN	0.8			G/DL
	RC			
CALCIUM	4.5 *		8.4-10.2	MG/DL
	RC			
PHOSPHORUS	11.7 H		2.4-4.5	MG/DL
CHOLESTEROL	122 L		100-200	MG/DL
URIC ACID	0.3 L		2.4-8.3	MG/DL
BILIRUBIN, TOTAL	0.2		0.1-1.2	MG/DL
ALKALINE PHOSPHATASE	222 H		117	U/L
SGOT (AST)	140 H		37	U/L
SGPT (ALT)	6		40	U/L

---FOOTNOTES---

RC RESULTS CHECKED

END OF REPORT

VMSM, SEATURTLE 03  
10/25/2000 03:21

FINAL REPORT

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VIRGINIA BEACH  
GENERAL HOSPITAL  
A Tidewater Health Care Facility

DEPARTMENT OF PATHOLOGY

R. Lawrence Smith, M.D., Valerio M. Genta, M.D., Robert A. Frazier, Jr., M.D.

NAME: VMSM, SEATURTLE 04

PT #: 0420-3

DOB: 00000000

yearling cc  
pvc-released

LOC: VA MARINE SCI MUS, COLLECTIONS

PHY: GEORGE, ROBERT DVM

SEX: M

CHEMISTRY

DATE: 10/24/00  
TIME: 2003

NORMAL UNITS

SODIUM	155 H	133-145	MMOL/L
POTASSIUM	4.0	3.3-5.1	MMOL/L
CHLORIDE	121 H	96-108	MMOL/L
CO2	28	22.0-29.0	MMOL/L
GLUCOSE	135 H	70-105	MG/DL
CREATININE	0.2	0-1.0	MG/DL
BUN	109 H	6-19	MG/DL
TOTAL PROTEIN	2.1 *	6.0-8.0	G/DL
	RC		
ALBUMIN	0.8		G/DL
	RC		
CALCIUM	4.2 *	8.8-10.2	MG/DL
	RC		
PHOSPHORUS	14.2 H	2.4-4.5	MG/DL
CHOLESTEROL	121 L	100-200	MG/DL
URIC ACID	0.3 L	2.4-8.3	MG/DL
BILIRUBIN, TOTAL	0.1 L	0.1-1.2	MG/DL
ALKALINE PHOSPHATASE	211 H	117	U/L
SGOT (AST)	156 H	17	U/L
SGPT (ALT)	7	40	U/L

---FOOTNOTES---

RC RESULTS CHECKED

END OF REPORT

VMSM, SEATURTLE 04

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FINAL REPORT



VIRGINIA BEACH  
GENERAL HOSPITAL  
A Tidewater Health Care facility

DEPARTMENT OF PATHOLOGY

R. Lawrence Smith, M.D., Valerio M. Genta, M.D., Robert A. Frazier, Jr., M.D.

NAME: VMSM, SEATURTLE 05  
PT #: 0420-4  
DOB: 00000000

LOC: VA MARINE SCI MUS, COLLECTIONS  
PHY: GEORGE, ROBERT DVM  
SEX: M

CHEMISTRY

DATE: 10/24/00  
TIME: 2009

NORMAL UNITS

SODIUM	135 H	133-145	MMOL/L
POTASSIUM	4.1	3.3-5.1	MMOL/L
CHLORIDE	127 H	96-108	MMOL/L
CO2	27	22.0-29.0	MMOL/L
GLUCOSE	130 H	70-105	MG/DL
CREATININE	0.7	0.6-1.0	MG/DL
BUN	71 H	6-19	MG/DL
TOTAL PROTEIN	2.6 *	6.0-8.0	G/DL
ALBUMIN	0.6		G/DL
CALCIUM	4.2 *	8.4-10.2	MG/DL
PHOSPHORUS	14.1 H	2.6-4.5	MG/DL
CHOLESTEROL	127 L	10-200	MG/DL
URIC ACID	0.1 L	2.3-8.3	MG/DL
BILIRUBIN, TOTAL	0.1 L	0.2-1.2	MG/DL
ALKALINE PHOSPHATASE	137 H	9-117	U/L
SGOT (AST)	127 H	0-37	U/L
SGPT (ALT)		0-40	U/L

---FOOTNOTES---

RC RESULTS CHECKED

END OF REPORT

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# APPENDIX 4

## NMFS GILLNET FISHERIES CLOSURE ANNOUNCEMENT



# Southeast Fishery Bulletin

National Marine Fisheries Service • Southeast Regional Office • 9721 Executive Center Drive N., St. Petersburg, FL 33702

## FOR INFORMATION CONTACT:

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[David.Bernhart@noaa.gov](mailto:David.Bernhart@noaa.gov)

## FOR IMMEDIATE RELEASE:

May 12, 2000  
NR00-022

### NOAA Fisheries Issues Emergency Rule to Protect Endangered and Threatened Sea Turtles along Eastern North Carolina and Virginia Coast *Large Mesh Gillnet Fishery Closed*

NOAA Fisheries announces the closure of waters along the coasts of Virginia and eastern North Carolina and in the mouth of the Chesapeake Bay to fishing with gillnets with a mesh size 6 inches or larger. The closed area includes all Atlantic Ocean waters between Cape Hatteras and 38° N. (approximately the Virginia-Maryland border), west of 75° W. longitude, and the waters in lower Chesapeake Bay, east of the Hampton Roads bridge-tunnel and south of a line drawn between Old Point Comfort and Cape Charles City. Fishermen have until 11:59 p.m. on May 13, 2000 to retrieve any gillnets with 6 inch mesh or greater that are already set. This closure is in effect through June 11, 2000.

An unprecedented number of dead sea turtles have washed ashore on the North Carolina Outer Banks in April and May. During two concentrated stranding events from April 14-17 and May 3-8, a total of 280 turtles have been found between the town of Ocracoke and Oregon Inlet. Almost all the turtles have been loggerheads, a threatened species. The ten-year average is only 219 loggerheads stranding in all of North Carolina in an entire year. Winds and currents helped bring the carcasses ashore in large numbers, but reports from fishermen indicate that many dead turtles are still at sea, so the actual extent of the turtle mortality offshore is much greater than the strandings would indicate.

Four of the loggerheads that stranded in May were entangled in gillnets with mesh sizes of 10 to 12 inches. NOAA Fisheries has determined that the most

likely source of this sea turtle mortality is large-mesh gillnetting for monkfish and possibly dogfish. Other possible causes, such as disease, toxic algae, trauma, or hook fisheries, are not consistent with the nature of the strandings. Satellite sea surface temperature information has allowed NOAA Fisheries to reconstruct the likely times and locations of the sea turtle mortality. Gillnetting for dogfish and monkfish have been the active fisheries in those times and places. These fisheries have long soak times, ranging from overnight to several days. Large-mesh gillnets are known to be highly effective at catching turtles and in fact were the gear of choice during the historical sea turtle fishery.

Sea turtles are now migrating northward along the North Carolina coast into Virginia waters and Chesapeake Bay as these waters are rapidly warming. The turtles will likely still be concentrated on their migratory routes over the next weeks, until they disperse over their foraging grounds, and they will continue to be vulnerable to coastal and offshore large-mesh gillnet fisheries. NOAA Fisheries is issuing this temporary closure to reduce any further mortality of threatened and endangered sea turtles from large-mesh gillnets, after the already record-setting number of strandings.

Back Bay National Wildlife Refuge  
1970-2000 Sea Turtle Nest Information

eggs) were relocated from Cape Romain NWR, SC after 50 days incubation to BBNWR, VA ("Loggerhead Eggs Transplant Project"). The relocation project produced a total of 5,557 hatchlings which were released in the Atlantic Ocean at BBNWR

**Key:** BBNWR=Back Bay National Wildlife Refuge; FCSP=False Cape State Park; SB=Sandbridge, Dam Neck, and Little Island City Park beaches; VB=Virginia Beach Resort Strip, Fort Story, and Croatan beaches  
**\*\*Example:** 0.5m N FCSP N border= 0.5 miles North of False Cape State Park's northern border  
 Incub ( )=nest relocated indoors and monitored by ( )      exc.=live hatchlings found during excavation  
 N/A= Data not available      \*\*\*Nest Success Rate=(#Eggs/#Hatchlings Emerged)\*100

Nest # (1 indicates transmitter applied)	Date of Nest	Locality	Exact Location of Nest** (see key)	# Eggs	# Hatchlings Emerged from Nest	Nest Success Rate(%)***	Comments (not complete)	Top Nest Depth	Bottom Nest Depth	Hatch Date	Incubation Period (days)
1	20-Jun-70	BBNWR	BBNWR beach ramp	132	0	N/A		N/A	N/A	N/A	N/A
2	30-Jun-70	SB	3m N BBNWR N border	87		N/A		N/A	N/A	N/A	N/A
3	1971	VB	N/A	119	0	0		N/A	N/A	N/A	N/A
	1972*	Relocated to BBNWR	Cape Romain, NWR (9 nests)	837	709	84.71		N/A	N/A	N/A	N/A
	1973*	Relocated to BBNWR	Cape Romain, NWR (12 nests)	1298	963	74.19		N/A	N/A	N/A	N/A
	1974*	Relocated to BBNWR	Cape Romain, NWR (9 nests)	854	735	86.07		N/A	N/A	N/A	N/A
	1975*	Relocated to BBNWR	Cape Romain, NWR (10 nests)	1064	852	80.08		N/A	N/A	N/A	N/A
	1977*	Relocated to BBNWR	Cape Romain, NWR (9 nests)	972	743	76.44		N/A	N/A	N/A	N/A
	1978*	Relocated to BBNWR	Cape Romain, NWR (8 nests)	686	597	87.03		N/A	N/A	N/A	N/A
	1979*	Relocated to BBNWR	Cape Romain, NWR (15 nests)	1883	N/A	N/A		N/A	N/A	N/A	N/A
4	21-Jul-79	BBNWR	0.5m N FCSP N border	132	81	61.36		N/A	N/A	N/A	N/A
5	2-Aug-79	FCSP	1m S FCSP N border	147	116	78.91		N/A	N/A	08-Nov-79	82
6	25-Jul-80	SB	3m N BBNWR N border	104	90	86.54		N/A	N/A	29-Sep-80	65
7	26-Jul-82	BBNWR	N/A	111	77	69.37	Relocated to Norfolk Zoo	N/A	N/A	16-Oct-82	82
8	13-Jul-83	FCSP	2m S FCSP border	93	35	37.63		N/A	N/A	N/A	62
9	14-Jun-85	FCSP	N/A	93	82	88.17		N/A	N/A	1-Sep-85	79
10	15-Jun-85	FCSP	N/A	93	36	38.71		N/A	N/A	7-Sep-85	84
11	29-Jun-85	SB	N/A	114	111	97.37		N/A	N/A	2-Sep-89	65
12	5-Aug-85	FCSP	N/A	137	131	95.62		N/A	N/A	11-Oct-85	67
13	31-Jul-86	BBNWR	BBNWR ramp	117	105	89.74	Relocated to VIMS	N/A	N/A	16-Oct-86	72
14	26-Jun-87	BBNWR	2.3m S BBNWR ramp	117	111	94.87		N/A	N/A	26-Aug-87	92
15	29-Jun-87	FCSP	0.25m S FCSP N border	119	89	74.79		N/A	N/A	31-Aug-87	61
16	10-Jul-87	BBNWR	2.8m S BBNWR ramp	154	140	90.91		N/A	N/A	10-Sep-87	61
17	24-Jul-87	BBNWR	0.75m S BBNWR ramp	141	138	97.87		N/A	N/A	30-Sep-87	68
18	29-Jul-87	VB	10th Street	94	80 (14 esc)	85.11	Relocated to VIMS	N/A	N/A	3-Oct-87	64
19	6-Aug-87	BBNWR	0.3m S BBNWR ramp	139	129	92.81		N/A	N/A	17-Oct-93	72
20	5-Jun-89	N/A	N/A	128	0	0.00		N/A	N/A	N/A	N/A
21	6-Jun-89	N/A	N/A	175	155	88.57		N/A	N/A	6-Aug-89	61
22	23-Jun-89	N/A	N/A	139	123	88.49		N/A	N/A	28-Aug-89	66
23	7-Jul-89	N/A	N/A	154	147	95.45		N/A	N/A	9-Sep-89	64
24	11-Jul-89	N/A	N/A	128	118	92.19		N/A	N/A	13-Sep-89	64
25	21-Jul-89	N/A	N/A	140	122	87.14		N/A	N/A	24-Sep-89	65
26	25-Jul-89	N/A	N/A	127	118	92.91		N/A	N/A	3-Oct-89	70
27	4-Aug-89	N/A	N/A	126	91	72.22		N/A	N/A	27-Oct-89	80

Back Bay National Wildlife Refuge

1970-2000 Sea Turtle Nest Information

Key: BBNWR=Back Bay National Wildlife Refuge; FCSP=False Cape State Park; SB=Sandbridge, Dam Neck, and Little Island City Park beaches;  
VB=Virginia Beach Resort Strip, Fort Story, and Croatan beaches

N/A= Data not available

\*\*\*Nest Success Rate=(#Eggs/#Hatchlings Emerged)\*100

Nest # (T indicates transmitted)	Date of Nest	Locality	Exact Location of Nest**(see key)	# Eggs	# Hatchlings Emerged from Nest	Nest Success Rate(%)***	Comments	Top Nest Depth	Bottom Nest Depth	Hatch Date	Incubation Period (days)
28	29-May-91	FCSP	0.5m S FCSP N border	145	122	84.14		25.5	96.5	5-Aug-91	67
29	25-Jul-91	BBNWR	1.6m S BBNWR ramp	140	134	95.71		25	53	6-Sep-91	66
30	25-Jul-91	FCSP	3.5m S FCSP N border	91	87	95.60		25	50	7-Oct-91	73
31	27-Jul-91	VB	0.5m S Rudee Inlet	113	86	76.11		31	48	7-Oct-91	71
32	28-Jul-91	BBNWR	2.6m S BBNWR ramp	136	113	83.09		30	48	7-Oct-91	70
33	9-Aug-91	BBNWR	0.25m N FCSP N border	93	55	59.14		20	45	28-Oct-91	80
34	12-Aug-91	BBNWR	0.80m N FCSP N border	124	72	58.06	Only 33 released	25	53	7-Nov-91	89
35	9-Jul-92	SB	Dam Neck	127	106	83.46		26	65	24-Sep-92	76
36	14-Jul-92	BBNWR	2m S BBNWR ramp	100	70 (52 exc)	70.00		37	63	1-Oct-92	78
37T	30-Jul-92	BBNWR	1.5m S BBNWR ramp	112	0	0	tagged QQB582,583, 585, 586	26	56	N/A	N/A
38	10-Jun-93	BBNWR	0.75m S BBNWR ramp	163	135 (56 exc)	82.82		17	53	13-Aug-93	64
39	24-Jun-93	FCSP	7m S BBNWR ramp	153	134	87.58		16	53	26-Aug-93	60
40	28-Jun-93	BBNWR	3.8m S BBNWR ramp	134	127 (1 exc)	94.78		33	65	27-Aug-93	59
41T	11-Jul-93	BBNWR	0.5m S BBNWR ramp	154	114	74.03	tagged QQB587-590	30.5	56	10-Sep-93	60
42	25-Jul-93	FCSP	5.5m S BBNWR ramp	132	117	88.64		42	57	6-Oct-93	72
T	8-Jul-94	FCSP	1m S Wash Woods	no nest			tagged SSB895, 892, 896, 897				
43	24-Jun-95	FCSP	1m S FCSP Barbour Hill ramp	144	133	92.36		37	51	24-Aug-95	61
44	9-Jul-95	FCSP	0.3m S FCSP N border	144	133	92.36		30	56.5	8-Sep-95	62
45	10-Jul-95	SB	1m N BBNWR N border	98	61	62.24		31	N/A	5-Sep-95	93
46	1-Aug-95	BBNWR	1.2m S BBNWR ramp	131	114	87.02		34.5	54	6-Oct-95	65
47T	14-Aug-95	BBNWR	1.5m S BBNWR ramp	84	79	94.05	QQB587-590 Recapture (588 missing)	43	53	3-Nov-95	112
48	7-Aug-96	VB	46th Street	123	107	86.99		34	57	5-Oct-96	80
49T	9-Aug-96	VB	62nd Street	138	57	41.30	tagged	30.1	50.1	26-Oct-96	81
50	12-Jun-97	BBNWR	100yards S Dune Trail	155	88	56.77		27	45	17-Aug-97	66
51	1-Jul-97	SB	0.25m N BBNWR N border	148	114	77.03		40	64	5-Sep-97	66
52T	14-Jul-97	BBNWR	0.25m S Dune Trail	156	145	92.95	QQB587 Recapture	29	41	18-Sep-97	65
53T	20-Jul-97	FCSP	200yards N FC Landing ramp	69	62	89.86	tagged	36	52.5	27-Sep-97	69
54	29-Jul-97	BBNWR	60yards S Dune Trail	119	110	92.44		43	62	1-Oct-97	64
55	20-Jul-98	BBNWR	500yards S BBNWR N border	94	81	86.17		45	65	24-Sep-98	67
56	30-Jul-98	BBNWR	0.10m N FCSP border	168	155	92.26		31	65	3-Oct-98	74
57	25-Jun-99	BBNWR	1.6m S BBNWR ramp	134	131	97.76		24	45	24-Aug-99	60
58	7-Jul-99	FCSP	9m S FC Landing ramp	92	88	95.65		33	59	14-Sep-99	69
59T	11-Jul-00	BBNWR	2.6m S BBNWR ramp	115	56 (30 exc)	48.70		19	48.3	2-Sep-00	74

Figure 8. 1980-2000 BBNWR Individual Nest Success Rates (Below)

1980-2000 BBNWR Nest Success Rates	
Nest Success	Number of Nests
0-10%	0
0-20%	2
21-30%	1
31-40%	2
41-50%	2
51-60%	2
61-70%	3
71-80%	5
81-90%	18
91-100	19

Figures 9 and 10. 1980-2000 BBNWR Individual Nest Success Rates (Right)

Date of Nest	Nest Success Rate(%)***	Incubation Period (days)
7-25-80	87	65
7-26-82	69	82
7-13-83	38	62
6-14-85	88	79
6-15-85	39	84
6-29-85	97	65
8-5-85	96	67
7-31-86	90	72
6-26-87	95	92
6-29-87	75	61
7-10-87	91	61
7-24-87	98	68
7-29-87	85	64
8-6-87	93	72
6-5-89	0	N/A
6-6-89	89	61
6-23-89	88	66
7-7-89	95	64
7-11-89	92	64
7-21-89	87	65
7-25-89	93	70
8-4-89	72	80
5-29-91	84	67
7-25-91	96	66
7-25-91	96	73
7-27-91	76	71
7-28-91	83	70
8-9-91	59	80
8-12-91	58	89
7-9-92	83	76
7-14-92	70	78
7-30-92	0	N/A
6-10-93	83	64
6-24-93	88	60
6-28-93	95	59
7-11-93	74	60
7-25-93	89	72
6-24-95	92	61
7-9-95	92	62
7-10-95	62	93
8-1-95	87	65
8-14-95	94	112
8-7-96	87	80
8-9-96	41	81
6-12-97	57	66
7-1-97	77	66
7-14-97	93	65
7-20-97	90	69
7-29-97	92	64
7-20-98	86	67
7-30-98	92	74
6-25-99	98	60
7-7-99	96	69
7-11-00	49	74

Figures 11 and 12. BBNWR Individual Nest Success Rates  
and Top and Bottom Nest Depths.

Date	Nest Success Rate(%)***	Top Nest Depth	Bottom Nest Depth
29-May-91	84.14	25.5	96.5
2-Jul-91	95.71	25	53
25-Jul-91	95.60	25	50
27-Jul-91	76.11	31	48
28-Jul-91	83.09	30	48
9-Aug-91	59.14	20	45
12-Aug-91	58.06	25	53
9-Jul-92	83.46	26	65
14-Jul-92	70.00	37	63
30-Jul-92	0	26	56
10-Jun-93	82.82	17	53
24-Jun-93	87.58	16	53
28-Jun-93	94.78	33	65
11-Jul-93	74.03	30.5	56
25-Jul-93	88.64	42	57
24-Jun-95	92.36	37	51
9-Jul-95	92.36	30	56.5
10-Jul-95	62.24	31	N/A
1-Aug-95	87.02	34.5	54
14-Aug-95	94.05	43	53
7-Aug-96	86.99	34	57
9-Aug-96	41.30	30.1	50.1
12-Jun-97	56.77	27	45
1-Jul-97	77.03	40	64
14-Jul-97	92.95	29	41
20-Jul-97	89.86	36	52.5
29-Jul-97	92.44	43	62
20-Jul-98	86.17	45	65
30-Jul-98	92.26	31	65
25-Jun-99	97.76	24	45
7-Jul-99	95.65	33	59
11-Jul-00	48.70	19	48.3

# **APPENDIX 6**

## **2000 SEA TURTLE PATROL EXPENSES**



## 2000 Sea Turtle Program Expenses

### Charges Made To ACOE:

Charges Made To AGCL:				
Turtle Related Biotech Hours:	Pay Period	M Farrell	C Wicker	
	12	50	32	
	13	41	32	
	14	51	32	
	15	31	32	
	16	51	38	
	17	56	53	
	18	32	36	
	19	48	68	
	20	73	0	
	TOTALS	433	323	=756
		(GS 5)	@ 10.93/hour	
			= \$8,263.08	
Other Biotech Hours:			\$6,143.08	
Equipment:	Umbrella, Repair, Skull Caps		\$976.96	
			<b>\$15,383.12</b>	

### Charges Made To BBNWR:

Patrol Hours (Biotech not included)				
	Volunteer	434 (VMSM)		
	Intern (Stipend)	153 (Andy and Eric)		\$191.25
		(Lamar, Sara, Cesar,		
	Staff (GS 5)	194 Daffny, Brighid)		\$2,120.42
	TOTALS	(715 patrol hours)		= \$2,311.67
Vehicle Repairs	Morning Patrols	\$3,263.69		
	Night Patrols	\$343.00		
	TOTALS			\$3,606.69
				<b>\$5,918.36</b>

Corp Funding	<b>\$20,700</b>
ACOE Funding Minus Denver Cut (38%)	<b>= \$12,834</b>

Charges made to Back Bay National Wildlife Refuge Account  
Back Bay National Wildlife Refuge  
2000 Sea Turtle Program

Vehicle Repairs for Morning Patrols			
Date	Item Description	Repaired by	Cost
02/16/00	94 Honda ATV tune up	Honda of VB	\$72.66
02/16/00	Repairs to 94 Honda ATV	Honda of VB	\$1,376.00
02/16/00	98 Suzuki ATV tune up	Honda of VB	\$70.50
		Pleasant Ridge	
06/05/00	12 cans WD40	Auto Parts	\$41.88
07/07/00	Yamaha ATV tire mounting	Kramer Tire	\$50.00
07/25/00	New tires for Yamaha ATV	Honda of VB	\$132.16
07/31/00	98 Suzuki ATV piston, cylinder board, gasket repairs and oil	Cycle World	\$482.10
09/05/00	94 Honda ATV clutch repair	Honda of VB	\$456.00
09/07/00	Suzuki ATV gear repairs	Cycle World	\$102.00
09/21/00	Yamaha ATV tune up and tires	Cycle World	\$480.39
Total =			\$3,263.69

Summary of Vehicle Repairs for Night Patrols			
Date	Description	Repaired by	Cost
06/16/00	Gas tank replacement for '93 Jeep	Witchduck Used Auto	\$42.00 out of \$140.00 (30%)
April-Sept.	Repairs for '91 Jeep	BBNWR	\$81.00
April-Sept.	Repairs for '93 Jeep	BBNWR	\$220.00
	2 Flat tires		misc.
	Routine maint.: oil changes, fluids, washing off vehicles		misc.
Total =			343+misc.

Night Patrol Related Manpower (June & July)				
Name	Title	Hours	Rate	Total Cost
Sara Williams	Refuge Jr. Biologist	35+16	GS-4	\$498.27
Lamar Gore	Refuge Wildlife Biologist	5	GS-9	\$82.85
Eric Duran	Refuge Intern	38+40	stipend pay	\$97.50
Andy Campomizzi	Refuge Intern	35+40	stipend pay	\$93.75
Cesar Freytes	Maintenance Mechanic	~68	~\$15.00/hour	\$1,020
Total =				\$1,792.37

**Grand Total = \$5,399.06**

Charges made to Army Corp of Engineers Account  
Back Bay National Wildlife Refuge  
2000 Sea Turtle Program

Supplies			
Date	Item	Retailer	Cost
06/16/00	Sun Umbrella	Superwalmart	\$23.92
06/16/00	Gator Repair	Hobbs Implement Co,	\$873.84
06/16/00	Skull Caps for Helmets	<u>Flight Suits</u>	<u>\$79.20</u>
Total =			<b>\$976.96</b>

Salaries			
Employee Name	Pay Period (Month)	Hours	Salary
Chris Wicker	12 (June)	80	925.53
Chris Wicker	13 (June)	80	858.27
Micheal Farrell	13 (June)	80	875.16
Chris Wicker	14 (June)	80	922.46
Micheal Farrell	14 (June)	80	841.39
Chris Wicker	15 (July)	80	925.49
Micheal Farrell	15 (July)	80	846.14
Chris Wicker	16 (July)	80	883.42
Micheal Farrell	16 (July)	80	941.1
Chris Wicker	17 (July)	80	947.48
Micheal Farrell	17 (July)	80	948.67
Chris Wicker	18 (July)	80	883.42
Micheal Farrell	18 (July)	80	781.61
Chris Wicker	19 (Sept.)	80	967.56
Micheal Farrell	19 (July)	80	929.23
Micheal Farrell	20 (July)	<u>80</u>	<u>929.23</u>
Total =			<b>\$14,406.16</b>

**Grand Total = \$15,383.12**

# Night Patrol Volunteer Schedule

June 2000

Sunday		E. Duran(8) Bob and Kathy Marchant(15) Nancy Hansen(7.5)	11	A.Campomizzi(8) RobertBastone(7) Jennifer Jeffers(7) C. Matyseck(7)	12	S. Williams(8) Bob (7.5) and Kathy(7.5) Marchant Robert Bastone(7.5)	5		
Monday			5	S. Williams(8) Bob (7.5) and Kathy(7.5) Marchant Robert Bastone(7.5)	26	A.Campomizzi(8) RobertBastone(7) Jackie Daley(4) Jennifer Jeffers(7) C. Matyseck(7)	27	A. Campomizzi(3) Nancy Borton(2.5)	
Tuesday			6	S. Williams(8) Cheryl Marcinko(7.5) Nancy Borton(7.5) CherylCortemelgia(7)	20	Sara Williams(3) Cheryl Marcinko(3)	21	A. Campomizzi(8) Beverly Bachman(6.5) Ginny Gehgan(6.5) Rick Contreras(6.5)	
Wednesday			7	A. Campomizzi(8) Trish Bargo(4) Marg.Zimmerman(7.5) Ginny Geghan (7.5)	14	S. Williams(8) Beverly Bachman (3hrs) Ginny Gehgan(7.5) Crystal Mirt(7)	28	E. Duran(1) Beverly Bachman(1) Ginny Gehgan(1)	
Thursday			8	M.C. Ferrell(8) Demetrian Klam(7) Gary Watts(6.5) Marian and Gentry Childress(14) Marcial Garcia(7)	15	M.C. Ferrell(8) Marcial Garcia(7.5) DemetriusKlams(7) M.Zimmerman(7.5)	22	M. C. Ferrell(8) Marcial Garcia(7.5) Joan Redfearn(7) M..Zimmerman(7.5)	
Friday			9	M.C. Ferrell(8) Dave Hendrickson(7.5) Dustie Werner(7.5) Debbie Adcock(7.5)	16	M.C. Ferrell(8) S.K.Borgognoni(7.5) Barbara McCane(7.5) Dustie Werner(7)	23	M. C. Ferrell(8) D.Hendrickson(7.5) Barbara McCane(7.5) Caryl Thompson(7.5)	
Saturday			10	E. Duran(8) Benny Hamblin(7) Andrea Kross(7) Caryl Thompson(7)	17	E. Duran(3) and L. Gore(5) Benny Hamblin (7) Roseann and Peter Fitzpatrick(14)	24	E. Duran(8) Deb Adcock(7.5) Benny Hamblin(7) Andrea Kross(6.5)	

June Total Volunteer Hours: 434 X \$5.25 = \$2,278.50  
 Total Staff Hours: +169  
 Break Down of Staff Hours and Expense: 35 hrs@GS-4 = \$341.95  
 5 hrs@GS-9 = \$ 82.85  
 73 hours stipend pay = \$ 91.25  
 \$516.05  
 = \$612.08  
 Biotechnician (56 hours)  
 \$1,128.13

# Night Patrol Schedule July/August 2000

Sunday	JULY 16		23	30 ACampomizzi (8) C Wicker (8)	23/30	
Monday	17		24	31 S Williams (8) C Wicker(8)	24/31	
Tuesday	18		25	1 AUGUST S Williams (8) C Wicker (8)	25	
Wednesday	19		26 E Duran (8) ACampomizzi(8)	2 ACampomizzi (8) C Wicker (8)	26	
Thursday	20		27 M Farrell (8) ACampomizzi(8)	3 E Duran (8) ACampomizzi (8)	27	
Friday	21		28 E Duran (8) M. Farrell (8)	4 E Duran (8) M Farrell (8)	28	
Saturday	22		29 E Duran (8) M. Farrell (8)	5	29	

July and August  
Total Volunteer Hours: 0  
+Total Staff Hours: 160

160 hours total

Break Down of Staff Hours and Expenses:  
16 hours @ GS4 = \$ 156.32  
80 hours stipend pay = \$100.00  
+64 hours Biotechnician = \$699.52

= \$ 955.84

## PAYROLL REPORT

Organization Code: 51510

NAME	R	MO	SUB ACT	PROJ #	FIX. CODE	SPEC. CODE	HRS	REG.PAY	ADD.PAY	PP#
Chris Wicker	N	jun	1926	0390	cor\$	-0-	80.	\$859.76	\$65.77	0012
Chris Wicker	y	jun	1926	0390	cor\$	-0-	80.	\$797.28	\$60.99	0013
Michael Farr	y	jun	1926	0390	cor\$	-0-	80.	\$812.96	\$62.20	0013
Chris Wicker	y	jun	1926	0390	cor\$	-0-	80.	\$859.68	\$62.78	0014
Michael Farr	y	jun	1926	0390	cor\$	-0-	80.	\$781.60	\$59.79	0014
Chris Wicker	y	jul	1926	0390	cor\$	-0-	80.	\$859.72	\$65.77	0015
Michael Farr	y	jul	1926	0390	cor\$	-0-	80.	\$786.01	\$60.13	0015
Chris Wicker	y	jul	1926	0390	cor\$	-0-	80.	\$820.64	\$62.78	0016
Michael Farr	y	jul	1926	0390	cor\$	-0-	80.	\$874.22	\$66.88	0016
Chris Wicker	y	jul	1926	0390	cor\$	-0-	80.	\$880.15	\$67.33	0017
Michael Farr	y	jul	1926	0390	cor\$	-0-	80.	\$888.73	\$59.94	0017
Chris Wicker	y	jul	1926	0390	cor\$	-0-	80.	\$820.64	\$62.78	0018
Michael Farr	y	jul	1926	0390	cor\$	-0-	80.	\$781.61	\$0.00	0018
Chris Wicker	y	sep	1926	0390	cor\$	-0-	80.	\$898.80	\$68.76	0019
Michael Farr	y	jul	1926	0390	cor\$	-0-	80.	\$863.19	\$66.04	0019
Michael Farr	y	jul	1926	0390	cor\$	-0-	80.	\$863.19	\$66.04	0020

Totals: \$13,448.18 \$957.98

Grand Total: \$14,406.16

DCRLOG::SHOWS DATA STORED IN TABLE "COSTS".

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DOCUMENT CONTROL REGISTER

Organization Code: 51510

DATE	DCN	SUB. PROJ. FIX. SPEC.	NUMB. NUMB. CODE CODE R	VENDOR NAME	AMOUNT	Ant. Exp?
06/16/00	5151000157a	1926 0390 cor\$ 261a y MC Swoope			\$23.92	N
Comment: superwalmart; sun umbrella						
06/16/00	5151000157a	1926 0390 cor\$ 257d y MC Swoope			\$873.84	N
Comment: hobbs implement co; work on gator						
06/16/00	5151000157a	1926 0390 cor\$ 261a y MC Swoope			\$79.20	N
Comment: flight suits; skull caps for turtle patrol						

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Organization Total: \$976.96

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DATA BASE TOTAL: \$976.96  
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DCRLOG::SHOWS DATA STORED IN TABLE "COSTS".

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DOCUMENT CONTROL REGISTER

Organization Code: 51510

DATE	DCN	SUB. NUMB.	PROJ. NUMB.	FIX. CODE	SPEC. CODE	R	VENDOR NAME	AMOUNT	Ant. Exp?
02/15/00	5151000060a	1261	0000	main	257d	y	#002 Imprest	\$8.74	N
Comment: Taylor do it center. keys for jeep									
02/16/00	5151000063a	1261	0000	main	257d	y	MC - Caldwell	\$72.66	N
Comment: honda of Va Bch; repair to 94 honda atv									
02/16/00	5151000063a	1261	0000	main	257d	y	MC - Caldwell	\$70.50	N
Comment: cycle world; repairs of 98 suzuki atv									
02/16/00	5151000063a	1261	0000	main	257d	y	MC - Caldwell	\$574.62	N
Comment: Colonial Chevrolet; repairs to 91 chev corsica									
02/16/00	5151000063a	1261	0000	main	257d	y	MC - Caldwell	\$434.88	N
Comment: lee tractor of suffolk; repairs to john deer 6x4 gator									
02/16/00	5151000064a	1261	0000	main	257d	y	MC Swoope	\$153.98	N
Comment: goodyearII; two tires replaced									
02/21/00	5151000065a	1261	0000	main	257d	y	MC Caldwell	\$1,442.57	N
Comment: hall auto mall; repairs to 1995 jeep cherokee									
04/17/00	5151000105a	1261	0000	main	257d	y	MC Swoope	\$427.67	N
Comment: new pig corp.; spill skid used for cleaning trams									
04/17/00	5151000105a	1261	0000	main	257d	y	MC Swoope	\$96.23	N
Comment: pleasant ridge auto; vehicle repairs									
05/26/00	5151000108a	1261	0000	main	257d	y	MC Stasko	\$15.99	N
Comment: kmart; wheelcovers for corsica									
09/05/00	5151000233a	1261	0000	main	257d	y	MC Caldwell	\$456.00	N
Comment: #4 honda of va bch; repair to turtle patrol atv clutch									
09/21/00	5151000247a	1261	0000	main	257d	n	MC Swoope	\$81.08	N
Comment: stevenson ford; muffler hardware for ford backhoe									
09/21/00	pendingmcs	1261	0000	main	257d	N	MC Swoope	\$126.84	N
Comment: pleaseant ridge auto; 11.55,27.95,58.37,10.91, 18.06									
09/21/00	pendingmcs	1261	0000	main	257d	N	MC Swoope	\$15.37	N
Comment: taylors; drain prob at colechester & padlock @ abceec									
09/21/00	pendingmcs	1261	0000	main	257d	N	MC Swoope	\$94.94	N
Comment: kellam & Eaton; nylon rope 3/8" 202 ft .47									
09/21/00	5151000256a	1261	0000	main	257d	N	MC Caldwell	\$1,705.96	N
Comment: the muffler center; 1663.84, 359.64 rpl ball jnts ront end 1988 ch									
09/21/00	5151000256a	1261	0000	main	257d	N	MC Caldwell	\$480.39	N
Comment: cycle world; repl tires brakes, tunup on yamaha 4x4									

DCRLOG::SHOWS DATA STORED IN TABLE "COSTS".

DOCUMENT CONTROL REGISTER

Organization Code: 51510

DATE	DCN	SUB. NUMB.	PROJ. NUMB.	FIX. CODE	SPEC. CODE R	VENDOR NAME	AMOUNT	Ant. Exp?
02/16/00	5151000063a	1926	0076	cont	257d N	MC Caldwell	\$1,376.00	N
Comment: honda of va bch; repairs to 94 hondaatv								
04/17/00	5151000107a	1262	0000	annu	257d y	MC Caldwell	\$533.00	N
Comment: goodyear; repair and repl of tires on ac fron end loader								
05/24/00	5151000126a	1262	0000	annu	257d y	MC Caldwell	\$166.30	N
Comment: the muffler center inc; re;r exhaust system on cheyenne truck								
06/16/00	5151000157a	1262	r5an	annu	257d y	MC Swoope	\$735.11	N
Comment: colley marine; repairs to whaler								
06/16/00	5151000157a	1262	r5an	annu	257d y	MC Swoope	\$283.26	N
Comment: s&s tug; repairs to tram								
06/16/00	5151000157a	1926	0390	cor\$	257d y	MC Swoope	\$873.84	N
Comment: hobbs implement co; work on gator								
06/16/00	5151000156a	1262	0000	annu	257d y	MC Caldwell	\$128.28	N
Comment: goodyear; tires and tubes for tram								
06/16/00	5151000156a	1262	r5an	annu	257d y	MC Caldwell	\$140.00	N
Comment: witchduck used auto; replacement gas tank for 93 jeep								
06/16/00	5151000156a	1262	0000	annu	257d y	MC Caldwell	\$292.51	N
Comment: colley marine; repairs to 9hp outboard on whaler								
07/27/00	5151000197a	1262	r5an	annu	257d y	MC Swoope	\$265.71	N
Comment: pleasant rdige auto; vehicl maint								
07/27/00	5151000198a	1262	r5an	annu	257d y	MC Caldwell	\$132.16	N
Comment: honda of va bch; tires for turtle patrol								
07/27/00	5151000198a	1262	r5an	annu	257d y	MC Caldwell	\$796.89	N
Comment: the muffler center; brake system repar to the 1987 dodge d250 pu								
07/27/00	5151000198a	1262	r5an	annu	257d y	MC Caldwell	\$879.37	N
Comment: the muffler center; replace shocks springs and struts on 1991 chev								
07/27/00	5151000198a	1262	r5an	annu	257d y	MC Caldwell	\$340.15	N
Comment: hall auto mall; repair motor mounts on 1995 jeep								
07/27/00	5151000198a	1262	r5an	annu	257d y	MC Caldwell	\$122.88	N
Comment: the muffler center; tire and mounting for m3 tug								
07/31/00	5151000231a	1262	0000	annu	257d y	MC Swoope	\$482.13	N
Comment: cycle world; suzuki atv reapiers piston, cylinder board, gasket oil								
07/31/00	pendingmcs	1262	r5an	annu	257d N	MC Swoope	\$781.33	N
Comment: #10 pleasant ridge auto; vehicle repairs								



## DOCUMENT CONTROL REGISTER

07/31/00	pendingmcs	1262 0000	annu 257d N MC Swoope	\$300.75	N
Comment: pleasant ridge auto; various bpa non-paid invoices 145.69, 15.25, 8					
08/23/00	5151000218a	1262 0000	annu 257d y MC Stasko	\$50.00	N
Comment: goodyear; tires					
07/31/00	5151000231a	1262 r5an	annu 257d y MC Swoope	\$318.81	N
Comment: #46 pleasant ridge auto; vehicle repairs					
08/05/00	5151000233a	1262 r5an	annu 257d y MC Caldwell	\$27.00	N
Comment: #1 goodyear; repair flat tire ford 531 tractor					
08/05/00	5151000233a	1262 r5an	annu 257d y MC Caldwell	\$78.72	N
Comment: #2 stevenson ford tractor; brake repairs for 531 tractor					
08/05/00	5151000233a	1262 r5an	annu 257d y MC Caldwell	\$1,056.84	N
Comment: #6 colonial chevrolet; repairs ac wipers on chevy cheyenne truck					
08/05/00	5151000233a	1262 r5an	annu 257d y MC Caldwell	\$290.77	N
Comment: #7 stevenson ford tractor; repairs bushhog on for 531 tractor					
08/05/00	5151000232a	1262 0000	annu 257d y MC Stasko	\$123.77	N
Comment: beach ford; repair to aerostar					
09/07/00	5151000247a	1262 r5an	annu 257d y MC Swoope	\$102.00	N
Comment: cycle world; suzuki repairs had trb maint speed in 5 gear watr deb					
09/07/00	pendingmcs	1262 r5an	annu 257d N MC Swoope	\$700.00	N
Comment: beach marine services; canoe needed to post and patrol shallow wat					
09/07/00	pendingmcs	1262 r5an	annu 257d N MC Swoope	\$400.00	N
Comment: beach marine services; rough neck needed to post and patrol shallo					
09/07/00	5151000246a	1262 0000	annu 257d y MC Caldwell	\$85.48	N
Comment: stevenson ford tractor, parts for bush hog					
09/07/00	5151000246a	1262 0000	annu 257d y MC Caldwell	\$297.95	N
Comment: macco auto painting; chevy pu paint to be in compliance w service					
09/11/00	5151000246a	1262 r5an	annu 257d y MC Caldwell	\$1,305.98	N
Comment: the muffler center; repair to front brakes and radiator for 1988 ch					
09/18/00	5151000247a	1262 r5an	annu 257d y MC Swoope	\$157.32	N
Comment: pleasant ridge auto; boat repairs go devel air filter ac loader					
09/18/00	pendingmcgs	1262 r5an	annu 257d N MC Swoope	\$3,263.00	N
Comment: outboard marine corpl evinrude midrange 4stroke outboard model e40					

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 Organization Total: \$16,887.31  
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DATA BASE TOTAL: \$16,887.31